

MA HUAN
YING-YAI SHENG-LAN
'THE OVERALL SURVEY OF
THE OCEAN'S SHORES'
[1433]

HAKLUYT SOCIETY
EXTRA SERIES No. XLII

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成祖文皇帝像



Portrait of the emperor Ch'eng-tsu (Yung-lo)

MA HUAN
YING-YAI SHENG-LAN
‘THE OVERALL SURVEY OF
THE OCEAN’S SHORES’

[1433]

*Translated from the Chinese text
edited by Feng Ch’eng-Chün
with introduction, notes and
appendices by*

J. V. G. MILLS

*formerly Puisne Judge
Straits Settlements*

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To
Marguerite Mélanie Service
(now my wife)

Printed in Great Britain
at the University Printing House, Cambridge
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PREFACE

The emperors of the Ming dynasty ruled China from 1368 to 1644, an important era displaying a picture of material prosperity and considerable cultural achievement. In particular, the first third of the fifteenth century constitutes a period of unusual interest in the story of Chinese overseas expansion. Chinese suzerainty, prestige, and influence extended further than ever before; Chinese trade increased in volume and variety; Chinese geographical knowledge grew in detail; Chinese arms enlarged their sphere of effectiveness; and, above all, Chinese naval power showed promise of becoming omnipotent.

For a description of this period, the Chinese authorities are invaluable, and the fullest and most interesting account was written by Ma Huan, a Chinese interpreter who accompanied the famous envoy Cheng Ho on three of his enormous expeditions. Ma Huan's book was entitled *Ying-yai sheng-lan*, 'The Overall Survey of the Ocean's Shores', and his latest observations date from the year 1433.

The present study is intended for members of the Hakluyt Society having a general interest in rare and unusual voyages, historians, anthropologists, and other specialists wishing to know what Ma Huan said, and as an aid for students of Chinese desiring to read Ma Huan's book as an original source.

The text, which is the basis of the present translation, made by kind permission of the Chung-hua Book Company of Peking, is that prepared by Feng Ch'eng-chün,¹ an able, learned, and experienced editor; and it is easily and cheaply obtainable in China or Hong Kong.

Great care has been taken to ensure that the ideas expressed by Ma Huan have been accurately represented.² It must be admitted, however, that irreconcilable differences exist as to the exact ideas which Ma Huan intended to express. For instance, the title, *Ying-yai sheng-lan*, was rendered as *General Account of the Shores of the Ocean* by Groeneveldt, and *Description of the Coasts of the Ocean* by Rockhill; it signified for Mr Tsui Chi *The Beautiful Views at the Boundary of the Immortals' Ying Island*, while for Duyvendak the first two characters connoted *Triumphant Visions*, and Dr J.

¹ Feng Ch'eng-chün, *Ying-yai sheng-lan chiao-chu*, 'The Overall Survey of the Ocean's Shores Annotated' (Shanghai, 1935; republished, Peking, 1955).

² The draft translation was re-read with a Chinese graduate of a British university; and difficult passages have been studied by Professor Homer H. Dubs and Dr S. C. Wu, formerly of Oxford University. To these generous advisers the editor feels particularly grateful; needless to say, they are in no way responsible for any remaining deficiencies.

Preface

Needham renders it as *Triumphant Visions of the Boundless Ocean*. In many cases Duyvendak and Pelliot, the two modern sinologues who have commented at greatest length on Ma Huan's book, express different views, and in such cases the editor has obviously been compelled to make a choice.

Of the standard dictionaries, Giles' dictionary has been found to be the most helpful. Its use has rendered it possible to refer to characters by numbers, and thus avoid the expense of printing a large number of characters.

Nomenclature is in the melting-pot; in certain areas change follows change with disconcerting rapidity. The spelling in the latest Supplements to the British Admiralty *Pilot* has usually been followed with inconsiderable variations to further accuracy and consistency; otherwise some recent publication of authority has been followed;¹ in cases of doubt variant forms have been added in brackets. Consistency is impossible, and the reader must not be surprised to find the same word spelled differently in different areas; thus the Malay word for 'island', spelled *pulau* in the Federation of Malaya, may be spelled *poeloe* in Indonesia, and *poulo* in Indo-China.

Square brackets are used to indicate an addition to, or explanation of, the text at the moment under consideration. Accents are omitted except in Chinese words, where diaereses are retained, in French words, and in names which ought to contain these marks according to the principles adopted by the Permanent Committee on Geographical Names.

In form, the present work follows the model currently approved for the Hakluyt Society's publications. Miscellaneous items of information which may be constantly required are set out in the Editorial Notes. In particular, attention is drawn to the tables of early Ming weights and measures which will probably be of great value to those studying such subjects as coinage, purchasing power, and distances. The equations are taken from a work by Wu Ch'eng-lo.²

The Introduction is divided into two parts; the first part describes the expeditions under the command of Cheng Ho; and the second discusses Ma Huan and his book. The translation of the *Ying-yai sheng-lan*, which follows, represents an entirely new version. Through the kindness of Professor Chang Cheng-lang of Peking and the courtesy of the Peking National Library, photostats of Ma Huan's work have been obtained from a rare Ming printed collection, *Kuo-ch'ao tien-ku*, 'The Literary Principles of a Dynastic Period', and this text was used to supplement (a) the single text used by Duyvendak and previous translators, (b) the two texts used by Pelliot, and (c) the three

¹ Such as Macmillan's *Atlas of South-East Asia* (London, 1964).

² Wu Ch'eng-lo, *Chung-kuo tu-liang-heng shih*, 'History of the Weights and Measures of China' (revised by Ch'eng Li-chun, Shanghai, 1957).

Preface

texts, one of which was a copy of the *Kuo-ch'ao tien-ku* version, used by Feng Ch'eng-chün.

The footnotes, to comply with the Society's principles, are intentionally restricted in length; they are not intended to provide a commentary; and, over and above necessary explanations, they are confined to the more important or interesting points.

The appendices treat several peripheral subjects germane to matters mentioned in Ma Huan's account. The first contains a gazetteer of southern Asian place-names as known to the Chinese in 1433. The second deals with the so-called Mao K'un Map which is supposed to set out Cheng Ho's itineraries, and an attempt has been made for the first time to identify all the names and legends, five hundred and seventy-seven in number, which appear in the map. In the other appendices certain matters on which little has been published are discussed. Substantial alterations, including the omission of ten appendices, have been made by the Society.

The index represents a compromise between the desire to be informative and the desire to be brief. Clearly it would be impracticable to list all the names in the Mao K'un Map, or all the references to individual animals or foodstuffs, so a reasonable compromise is aimed at; based on common sense, listing the more important places or items, and including the less important under areas or classes, as the case may be.

J. V. G. M.

April 1967

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The editor wishes to acknowledge his indebtedness to Dr A. L. Basham, Dr A. Beer, Bodley's Librarian, Professor C. R. Boxer, the Trustees of the British Museum, the Librarian of the Cambridge University Library, the Cambridge University Press, Dr J. G. de Casparis, Professor Chang Cheng-lang, Professor Kuonan Chang, the Chung-hua Book Company, the Columbia University Library, the Librarian of Congress, Mr G. R. Crone and the Map Room Staff of the Royal Geographical Society, Professor E. Gaspardone, Professor L. Carrington Goodrich, Messrs W. van Hoeve Ltd, Dr P. J. Honey, Mr R. J. Hoy, Mr J. Lust and the Library Staff of the School of Oriental and African Studies, Dr A. W. Hummel, the Hydrographer of the Navy, the Librarian of the Institut des Hautes Études chinoises, Mrs Iu Yan Kit, the Peking National Library, the late Dr V. Purcell, Messrs W. H. Robinson Ltd, the Royal Asiatic Society, Professor E. H. Schafer, Professor R. B. Serjeant, Miss V. Tan, Lieutenant-Commander D. W. Waters, Dr P. Wheatley, the late Sir R. O. Winstedt, and Dr O. W. Wolters. He is particularly beholden to Dr R. A. Skelton, formerly Honorary Secretary of the Hakluyt Society, for his unfailing assistance; to Miss Eila M. J. Campbell, present Honorary Secretary, for seeing the book through the press with her usual efficiency; to Professor C. F. Beckingham for his ready help in matters Arabic; to Dr Helen Wallis for her constant cheerfulness under an almost continuous bombardment of questions regarding minutiae; and to the Director of the School of Oriental and African Studies for permission to use the Library over a period of many years. He records his most sincere thanks to Professor Homer H. Dubs and Dr S. C. Wu for their invaluable advice on the translation from Chinese. Lastly, he owes an unpayable debt of gratitude to Dr J. Needham, F.R.S., Master of Gonville and Caius College, Cambridge, for his unsurpassed generosity in making available the results of his brilliant researches.

EDITORIAL NOTES

I. GENERAL

Astronomy

Pei ch'en star. The Pole Star. Polaris (Alpha of Ursa Minor). Arab *al-Jah* (Gah). Declination $+89^{\circ} 06'$.

Hua kai star. Perhaps ζ of Cassiopeia. Declination $+72^{\circ} 15'$. The Chinese reckoned that when the altitude of *Pei ch'en* was 1 finger, that of *Hua kai* was 8 fingers; and the Arabs reckoned that when the altitude of *al-Jah* was 1 finger, that of *al-Farqadan* was 8 fingers; thus the altitude of *Hua kai* was the same as that of *al-Farqadan* (Beta of Ursa Minor, declination $+74^{\circ} 17'$, and Gamma of Ursa Minor, declination $+71^{\circ} 57'$). One finger (Chinese *chih*, Arab *isba*) represented an angle of $1^{\circ} 36' 25''$. One *chüeh* ('fraction') probably represented an angle of $24' 06''$. To find the approximate latitude of a place, $3^{\circ} 30'$ must be added to the altitude of Polaris at that place in the fifteenth century.¹

Capital

The capital of China was removed from Nanking to Peking in 1421.²

Compass

On the Chinese compass 24 named points were marked to divide the circle of 360° into 24 parts of 15° each; by combining the names of two contiguous points, the circle was further divided into 48 parts of $7\frac{1}{2}^{\circ}$ each.³

Country of origin

All articles found in a country, irrespective of their real origin, are described by Chinese writers as products of that country.⁴

¹ Compare G. Ferrand, *Instructions nautiques et routiers arabes et portugais des XV^e et XVI^e siècles*, vol. III (Paris, 1928), pp. 154-5, 165, n. 1; Ferrand, *Relations de voyages et textes géographiques arabes, persans et turks relatifs à l'Extrême-orient du VIII^e au XVIII^e siècles* (Paris, vol. I, 1913; vol. II, 1914), p. 532; appendix 3, Miscellaneous notes on ships, seamanship, navigation, and cognate matters; appendix 6, Four stellar diagrams.

² P. Pelliot, 'Notes additionnelles sur Tcheng Houo et sur ses voyages', *T'oung Pao*, vol. XXXI (1935), p. 289, n. 1. (Hereafter referred to as 'Notes'.)

³ Ferrand, *Instructions*, vol. III, pp. 44, n. 1 and 58, n. 1.

⁴ W. P. Groeneveldt, 'Notes on the Malay Archipelago and Malacca', in *Miscellaneous Papers relating to Indo-China and the Indian Archipelago*, Second Series, vol. 1, ed. R. Rost (London, 1887), p. 174, n.

Editorial notes

Dates

The period considered in this study is from 1403 to 1433. The dates given for the imperial reigns are those of the 'year-periods', unless otherwise stated.¹ Frequently the 'year-period' began at the next New Year after accession; for individual cases see Philips.²

The emperors of China in this period were: Ch'eng-tsu (Yung-lo), 1403-24; Jen-tsung (Hung-hsi), 1425; Hsüan-tsung (Hsüan-te), 1426-35. Ma Huan accompanied Cheng Ho's fourth, sixth, and seventh expeditions.³ His observations are referred to the year 1433, unless otherwise indicated. His book was probably published in 1451.⁴

Apparent inconsistencies in dating a traveller's book may be due to the fact that reference is sometimes made to the date of observation, sometimes to the date of recording, and sometimes to the date of publication.⁵

Terminology

'Mile': sea-mile, and distances are measured along the course probably followed. 'Southern Asia': Asia south of latitude 27° 03' N (Hormuz). 'The Central Country': China.

Values

The present value of gold is taken as £12 10s. an ounce Troy. The present value of silver is taken as 9s. 4d. an ounce Troy.

Weights and measures

(The fractions are carried to the last appropriate figure; omission of later figures sometimes leads to apparent errors in calculation.)

Weight⁶

10 <i>hu</i>	= 1 <i>ssu</i>	(0.00037 gramme or 0.005 grain)
10 <i>ssu</i>	= 1 <i>hao</i>	(0.0037 gramme or 0.05 grain)

¹ See Rév. Père P. Hoang, *Concordance des chronologies néoméniques Chinoise et Européenne*. Variétés Sinologiques no. 29 (Shanghai, 1910).

² C. H. Philips (ed.), *Handbook of Oriental History* (London, 1951), pp. 201-14.

³ P. Pelliot, 'Les grands voyages maritimes chinois au début du XV^e siècle', *T'oung Pao*, vol. xxx (1933), p. 263. (Hereafter referred to as 'Voyages'.)

⁴ Pelliot, 'Voyages', p. 264.

⁵ Compare H. Yule and A. C. Burnell, *Hobson-Jobson* (new ed., London, 1903) p. xxvi.

⁶ (Ming) 1 *liang* equalled 37.30 grammes (Wu Ch'eng-lo, p. 60). In full, 1 *liang* equalled 575.626655 grains or 1.199195 ounces troy or 1.315571 ounces avoirdupois. 1 gramme equals 15.43235 grains or 0.03215 ounce troy or 0.03527 ounce avoirdupois. A *liang* is sometimes called 'ounce', a *chin* is sometimes called 'catty' (*kati*), and 100 catties make 1 picul.

Editorial notes

10 hao	= 1 li	(0.037 gramme or 0.57 grain or 0.00119 ounce troy)
10 li	= 1 fen	(0.37 gramme or 5.75 grains or 0.0119 ounce troy)
10 fen	= 1 ch'ien	(3.73 grammes or 57.56 grains or 0.119 ounce troy)
10 ch'ien	= 1 liang	(37.30 grammes or 575.62 grains or 1.19 ounces troy or 1.31 ounces avoirdupois)
16 liang	= 1 chin	(596.80 grammes or 9210.02 grains or 19.18 ounces troy or 1.31 pounds avoirdupois)

Capacity¹

10 ko	= 1 sheng	(1.07 litres or 1.88 pints)
10 sheng	= 1 tou	(10.737 litres or 2.36 gallons)

Length²

- (a) 10 li = 1 fen (0.31 centimetre or 0.12 inch)
10 fen = 1 ts'un (3.11 centimetres or 1.22 inches)
10 ts'un = 1 ch'ih (31.10 centimetres or 12.24 inches)
10 ch'ih = 1 chang (3.11 metres or 10 feet 2 inches)

(b) 1 li in theory equalled 612.20 yards,³ but in practice varied at different times and places.

II. LINGUISTIC

Transliteration

The Wade-Giles system is used for transliterating Chinese words, except that *chio* is replaced by *chüeh*, *ch'io* by *ch'üeh*, *hsio* by *hsüeh*, *yo* by *yüeh*, and *yi* by *i*.

Nomenclature

The main rules of the P.C.G.N. (Permanent Committee on Geographical Names) Principles employed in British Admiralty Hydrographic publications since 1954:

(a) The names of countries are spelled in accordance with English conventional usage;

(b) The approved names of places and administrative divisions in a state are those adopted by the supreme administering authority concerned with that state;

¹ (Ming) 1 sheng equalled 1.0737 litres (Wu Ch'eng-lo, p. 58). In full, 1 sheng equalled 1.88949726 pints. 1 litre equals 1.75980 pints. A sheng is sometimes called 'pint', a tou is sometimes called 'peck'.

² (Ming) 1 ch'ih equalled 31.10 centimetres (Wu Ch'eng-lo, p. 54). In full, 1 ch'ih equalled 12.24407 inches. 1 centimetre equals 0.3937 inch. A ts'un is sometimes called 'inch', a ch'ih is sometimes called 'foot'.

³ 1 li equalled 1,800 ch'ih (Giles, No. 6870).

Editorial notes

(c) The official names of places in China are rendered in Roman letters in accordance with the Wade-Giles system subject to minor modifications.¹

Conventions used for the romanization of Chinese

(a) *Book titles*

Current academic convention is followed throughout. Capital letters are used only for the initial letter of the first word of the title, and for proper names. Hyphens are used to indicate word groupings containing single ideas.

(b) *Names of persons*

Again, current academic convention is followed throughout. Capitals are used for the initial letter of a patronym, and for the initial letter of the first syllable of a given name only. The syllables of a given name are linked by a hyphen. For example: Feng Ch'eng-chün, Ma Huan, Wang Ta-yüan, and so on.

(c) *Names of places and stars, of Chinese origin*

Capitals are ordinarily used only for the initial letter of the first syllable. In order to indicate Chinese origin, hyphens are omitted throughout (a departure from current academic practice). Capitals are used for medial syllables when it is clear that these syllables are full proper names. For example: Chia Wu hsü.

(d) *Place-names which are apparently Chinese transliterations of originals in other Asian languages*

If the syllables cannot be understood with reasonable certainty, a capital is used only for the initial letter of the first syllable, and the syllables are not hyphenated. For example: Ya shu tsai chi. If the syllables can be understood with reasonable certainty, a capital is used for the initial letter of each name, and the syllables of each name are hyphenated. For example: P'ang-chia Shih-lan, 'Panga Sinan'.

Glossaries

Geographical terms²

<i>English</i>	<i>Chinese</i>	<i>In</i>		<i>Peninsular</i>	
		<i>Vietnam</i>	<i>Thai</i>	<i>Malay</i>	<i>Arabic</i>
Bay	Wan	Vung	Ao	Telok	Ghubbat
Cape	Tsui	Mui	Hlaem, etc.	Tanjong	Ras
Island	Hsü	Hon, Culao	Koh, etc.	Pulau	Gezira, Jazirat, etc.
Mountain	Shan	Nui	Khao, etc.	Gunong	Jabal, Gebel
River	Chiang	Song	Maenam	Sungei	Nahr

¹ *China Sea Pilot*, vol. III (2nd ed., London, 1954), pp. xv-xvi.

² See *China Sea Pilot*, vol. I (2nd ed., London, 1951), pp. ix-xii; *Red Sea and Gulf of Aden Pilot* (10th ed., London, 1955), pp. ix-xii.

Editorial notes

*Chinese territorial designations*¹

Fu. Prefecture. The largest division of a province.

T'ing. Sub-prefecture. A sub-division of a prefecture.

Chou. Department. A division ranking below a sub-prefecture and above a district.

Hsien. District. The lowest sub-division of a province.

Wei. Military district (5,600 men).

So. Military station (1,120 men).

Chinese terms having no true English equivalent

Chiang chen aromatic. Laka-wood, the scented wood of *Dalbergia parviflora* Roxb.²

Ko bean. An edible bean, *Pachyrhizus Thunbergianus*.³

Lung yen fruit. Longan, *Nephelium longana* Camb.⁴

Po-ho weight. Bahar, a weight of about 400 pounds avoirdupois, but varying at different times, in different places, and for different commodities.⁵

Su lign-aloes. A fragrant wood yielded by several species of the genus *Aquilaria*.⁶

¹ G. M. H. Playfair, *The Cities and Towns of China* (Shanghai, 1910), pp. viii-x; E. O. Reischauer and J. K. Fairbank, *East Asia: The Great Tradition* (London, 1961), p. 301.

² P. Wheatley, 'Geographical Notes on some Commodities involved in Sung Maritime Trade', *Journal of the Malayan Branch of the Royal Asiatic Society*, vol. xxxii, pt. 2 (1959), p. 119.

³ Pelliot, 'Voyages', p. 391.

⁴ Pelliot, 'Voyages', p. 434.

⁵ C. R. Boxer, *South China in the Sixteenth Century* (London, 1953), p. 128, n. 1.

⁶ Wheatley, 'Commodities', pp. 69, 71.

INTRODUCTION

The Yung-lo emperor followed a vigorous policy of aggressive expansion, and in pursuance of this policy he despatched a series of enormous naval expeditions to the 'Western Ocean', mostly under the grand eunuch Cheng Ho. Much might be written about the complex motives for the despatch of these expeditions and the objects which they were intended to achieve. It seems probable that the emperor was actuated by a desire to enhance his own personal prestige by a flattering display of might, which would result in a throng of foreign ambassadors seeking audience at his court. He probably wished to re-establish the renown of China as a leading political and cultural state and secure its hegemony over the eastern world by a manifestation of its power and wealth, and he probably also desired to expand overseas commerce, particularly with the countries of the occident, since this yielded profit to the treasury, brought prosperity to those engaged in it, and introduced goods badly needed by the court and country, especially since the conquests of Timur Lang (Tamerlane) had cut the continental silk-route.¹

Whatever may have been the objects and reasons, the Ming navy, as will be seen, became an instrument of aggression and political domination, advancing into the Indian Ocean; and the 'haughty emissaries of the Dragon Throne, armed to the teeth to enforce the imperial will', 'made known the proclamations of the Son of Heaven, and spread abroad the knowledge of

¹ J. J. L. Duyvendak, *China's Discovery of Africa* (London, 1949), p. 26; Le Thanh Khoi, *Le Viet-Nam* (Paris, 1955), p. 203; Jung-pang Lo, 'The decline of the Early Ming Navy', *Oriens Extremus*, vol. v (2) (1958), p. 151; P. Wheatley, *The Golden Khersonese* (Kuala Lumpur, 1961), p. 88. Historians are not agreed as to the reasons for the expeditions. J. Needham (*Science and Civilisation in China*, vol. 1 (Cambridge, 1954), p. 143) considered that they are not known; Reischauer and Fairbank (p. 321) thought them a matter of speculation. Other suggested motives include (a) the emperor's ambition to establish a thalassocracy, supplanting the Javanese empire of Majapahit (G. Coedès, *Les États hindouisés d'Indochine et d'Indonésie* (3rd ed., Paris, 1964), p. 435; Jung-pang Lo, 'Ming', p. 151); (b) his desire to search out the ex-emperor Chu Yün-wen, from whom he had wrested the throne (Pelliot, 'Notes', p. 306; Reischauer and Fairbank, p. 322; rejected by Duyvendak); (c) his aim to bring the known world into the Chinese tributary system (Reischauer and Fairbank, pp. 321-2; M. A. P. Meilink-Roelofs, *Asian Trade and European Influence* (The Hague, 1962), p. 337, n. 37); (d) his wish to extend economic and cultural exchanges, and to get in touch with western Europe; see O. W. Wolters, 'China irredenta: the south' in *The World Today* (December 1963), p. 550. The expeditions did much geographical exploration, and brought back a number of interesting and valuable objects; but it is at present impossible to distinguish between reasons and results.

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his majesty and goodness. They bestowed gifts upon kings and rulers, and those who refused submission they overawed by force.'¹

When the Yung-lo emperor died in 1424 the Ming dynasty had reached the apex of its power, and the empire was wealthy and populous. Chinese suzerainty was acknowledged by more foreign rulers than ever before,² even distant Egypt sending an ambassador.³ The renown of China was established throughout the orient, and states which declared their submission received political protection and material rewards. A Chinese governor ruled Palembang under Chinese auspices, and the ruler of Malacca, under the aegis of Chinese naval power, established himself in territory controlled by the Thai.⁴ Representatives of sixty-seven overseas states, including seven kings, came bearing tribute to render homage to the emperor,⁵ while states which refused submission were overawed by force; thus, a defiant king of Ceylon and two Sumatran chiefs were captured and brought as prisoners to China.⁶

China was the paramount sea-power of the orient.⁷ Yung-lo's remarkable navy at its maximum strength included four hundred warships of the fleet stationed near Nanking, two thousand seven hundred warships of the coastal guard stations, four hundred armed transports of the grain-conveyance fleet, and, the pride of the Ming navy, two hundred and fifty 'treasure-ships', each carrying five hundred men.⁸ During a period of twenty years the grand

¹ Jung-pang Lo, 'The emergence of China as a Sea Power during the Late Sung and Early Yüan Periods', *Far Eastern Quarterly*, vol. xiv, no. 4 (1955), p. 503; V. Purcell, *The Chinese in Southeast Asia* (London-New York-Toronto, 1951), p. 30; Needham, vol. III, p. 557. Modern scholars are not agreed as to the aggressive intentions of the expeditions; for instance, Reischauer and Fairbank (p. 322) do not go further than to say that foreigners were 'no doubt impressed, if not utterly terrified, by the Chinese armadas', and Tsui Chi thought that the fifth voyage had a peaceful intention (Tsui Chi, *A Short History of Chinese Civilisation* (London, 1947), p. 192).

² K. S. Latourette, *A Short History of the Far East* (New York, 1947), p. 135.

³ Duyvendak, *Africa*, p. 32.

⁴ J. J. L. Duyvendak, 'The true dates of the Chinese maritime expeditions in the early fifteenth century', *T'oung Pao*, vol. xxxiv (1938), p. 395; Duyvendak, *Africa*, p. 26; Jung-pang Lo, 'Ming', pp. 151-2.

⁵ The number has been ascertained from an examination of the 'principal annals' (*pen chi*) as well as the accounts of some ninety countries in the *Ming shih* [*Erh-shih-wu shih*, 'The twenty-five histories' (K'ai-ming shu-tien ed., Shanghai, 1935), vol. ix, *Ming shih*, 'Ming history', by Chang T'ing-yü and others (1739)]. Compare J. K. Fairbank and S. Y. Teng, 'On the Ch'ing Tributary System', *Harvard Journal of Asiatic Studies*, vol. vi, no. 2 (1941), p. 155, and Jung-pang Lo, 'Ming', p. 151.

⁶ Needham, vol. III, p. 557; Jung-pang Lo, 'Ming', p. 151.

⁷ Jung-pang Lo, 'Ming', p. 151. Dr J. Needham, F.R.S. (private communication) considers that China could have outmatched any contemporary European state.

⁸ Jung-pang Lo, 'Sung', p. 493; Jung-pang Lo, 'Ming', p. 150. We follow this writer in calling them 'treasure-ships', but perhaps they should more accurately be designated 'jewel-ships', since they were 'ships (for fetching) precious stones from the western ocean' (Duyvendak, 'Dates', p. 388).

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eunuch Cheng Ho had been despatched on six spectacular expeditions of enormous size, comprising powerful fleets which could include sixty-three great 'treasure-ships' and more than twenty-eight thousand officers and men.¹ China enjoyed a hegemony over a vast arc of land which extended from Japan to the east coast of Africa; and China's wealth and might were manifested when Chinese warships cruised in the Indian Ocean and Chinese arms made their power felt as far away as Ceylon.² Foreign commerce flourished. The naval expeditions gave a strong impetus to maritime commerce, and contact was made with a number of countries in Africa; 'there was uninterrupted going to and fro', and the volume of trade presumably reached a new high point.³

But the passing of the Yung-lo emperor ended the heroic age of imperial China; the great awakening was over, the spiritual vigour evaporated, and energetic action was no longer forthcoming. Military ardour waned, and anti-militaristic and anti-expansionist sentiments were aired.

A stream of failures, withdrawals, and recessions grew in volume; and one of the first actions of the emperor Jen-tsung was to suspend all overseas expeditions,⁴ though envoys were sent to the Ryukyu islands in 1424 and 1425, and to Champa in 1426. In Tongking the Chinese forces were being worsted; during 1425 reinforcements coming by sea were cut to pieces, a later defeat led to the loss of three hundred junks, and further failures compelled the Chinese commander to capitulate, with the result that Chinese forces finally left the country in 1427.⁵ The Chinese fleets were now reduced in size and the off-shore bases withdrawn,⁶ while during 1430 the emperor again sent an envoy to the shogun, protesting against the raids of Japanese pirates.⁷

Meanwhile in China deterioration continued, and during 1431 regulations were made for the employment of naval men to transport grain on the canal, thus reducing them from fighting men to stevedores.⁸ In the diplomatic field, ambassadors were once more exchanged between China and Japan in 1432, and Chinese envoys were sent to Japan and Semudera in 1433.⁹

When Cheng Ho returned from his last expedition, however, China was

¹ Pao Tsen-peng, *On the Ships of Cheng Ho* (Taipei, 1961), pp. 25-6.

² Jung-pang Lo, 'Ming', pp. 149, 151.

³ Latourette, *Far East*, p. 282; Duyvendak, *Africa*, p. 26; Needham, vol. III, p. 557.

⁴ Jung-pang Lo, 'Ming', has considered the 'deep-seated causes' which resulted in the termination of the naval expeditions and the decline of China's prestige.

⁵ Le Thanh Khoi, pp. 213, 216.

⁶ Jung-pang Lo, 'Ming', p. 168.

⁷ M. C. Haguénauer, 'Encore la question des Gores', *Journal Asiatique*, vol. CCXXVI (1935), p. 101.

⁸ Jung-pang Lo, 'Ming', pp. 160-1.

⁹ Haguénauer, pp. 101-2.

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still the most important state in the orient. In addition to the adjacent countries such as Champa and Thailand, he had visited some fifty new places, and their rulers were enrolled by the Chinese as tributaries; moreover, envoys from eleven countries returned with him, and one envoy came from Mecca, the furthest place reached on the route to Europe.¹

China still had the most powerful navy in the orient, enabling the Chinese to maintain their political control in the Indian Ocean.² The expeditions greatly stimulated overseas trade, and for a century the Chinese controlled all the commerce in the waters of the east;³ the 'Chinars' were 'trafficking throughout all the Oriental countries', as Linschoten put it, and Chinese traders in Chinese ships for the first time entered into direct commercial relations with several African countries.⁴

China exported silks, porcelain, lacquer-ware, art-objects, copper cash, and Buddhist sutras; and imported camphor, tortoise-shell, coral, pepper and other spices, areca-nuts, sandalwood, incense, dye-stuffs, cotton fabrics, sugar, ivory, elephants, parakeets, buffaloes, pearls and precious stones, rhinoceros horns, drugs, glass, tin, and 'western products'.⁵ The Chinese

¹ Jung-pang Lo, 'Ming', p. 151; Latourette, *Far East*, p. 282; Pelliot, 'Notes', p. 296, n. 2. Probably it behoved the Chinese to tread delicately, for Jidda and Mecca were included in the empire of Barsbay, the Mameluke sultan of Egypt, whose predecessors had defeated the Mongol invaders on four different occasions (W. Popper, *Egypt and Syria under the Circassian Sultans* (Berkeley-Los Angeles, 1955), map 2; P. K. Hitti, *History of the Arabs* (6th ed., London, 1958), pp. 679-80).

² Jung-pang Lo, 'Sung', p. 493; J. Auber, *Histoire de l'Océan Indien* (Tananarive, 1955), p. 144. A part of Ceylon paid tribute to the Ming till 1459. But the Nan yang, 'Southern Ocean', was China's chief sphere of influence, and to the power of the Ming fleets we may attribute the protection of Malacca from the Thai, the expulsion of the pirates from Palembang, and the restoration of the ruler of Semudera; see Wolters, 'China', pp. 546, 547.

³ Latourette, *Far East*, p. 282; Jung-pang Lo, 'Ming', p. 156. But Serjeant considered that until 1498 the Arabs controlled the Indian and Far East trade (R. B. Serjeant, *The Portuguese off the South Arabian Coast* (Oxford, 1963), p. 3), and Hourani (G. F. Hourani, *Arab Seafaring in the Indian Ocean* (Princeton, 1951), p. 83) held that the Arabs remained the leading traders and mariners in the Indian Ocean; see also M. A. P. Meilink-Roelofs (pp. 16, 60, 332, n. 22) on the division of the Indian Ocean trade between the Arabs in the western half and the Indians in the eastern half. From India the bulk of the traffic went to Hormuz and up the Persian Gulf to Aleppo, or to Aden and up the Red Sea to Cairo. The Venetians bought spices from the Levant, Beirut, and Alexandria for distribution in Europe. For the long pull between western Europe and Cathay the whirligig of time has wrought curious vicissitudes; the camel-caravan gave place to the ship, and now the long sea-route is challenged by the old caravan-track where Marco Polo's 'spirit voices' of the Taklamakan desert are drowned by the roar of the internal combustion engine.

⁴ Duyvendak, *Africa*, p. 26.

⁵ Haguenauer, p. 116. But Jung-pang Lo ('Ming', p. 154) gives the bulk of the imports as horses, copper ores, sulphur, timber, hides, gold, silver, and rice; and Reischauer and Fairbank (p. 336) add iron pans as exports.

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resident abroad also participated in the overseas inter-port trade, and both Ma Huan and Fei Hsin specify the articles which the Chinese used as 'trade-goods' at different ports.¹

Foreign commerce was highly lucrative, and enormous profits accrued from the tributary system so long as the Chinese government could cajole foreign envoys into selling their merchandise at arbitrary low prices and accepting payment in Chinese notes.²

I. CHENG HO AND HIS EXPEDITIONS

A. *Life of Cheng Ho*³

Cheng Ho's original name was Ma Ho; his family lived in the department of K'un yang, situated at the south-west corner of lake Tien chih in Yünnan province.⁴ His great-grandfather had borne the Mongol name of Bayan, and had perhaps been a member of a Mongol garrison stationed in Yünnan. His father had the surname of Ma and the designation of 'Haji', indicating that he was a Muslim who had performed the pilgrimage to Mecca.⁵

Ma Ho was born about 1371, being the second son in a family which also contained four daughters.⁶ As a boy he showed signs of unusual ability and doubtless he was brought up in the Muslim faith.⁷ In his twentieth year he entered the service of the so-called prince of Yen, that is, Chu Ti, the Hung-wu emperor's fourth son, who had been given control of a large district in the north-east and in 1403 became the emperor Ch'eng-tsu.⁸

It is doubtful whether Ma Ho was an educated man, but he studied the science and art of war, and he distinguished himself in the suppression of a rebellion in Yünnan.⁹ In 1404 as a mark of imperial favour the emperor

¹ For Fei Hsin see the translations of W. W. Rockhill, 'Notes on the relations and trade of China with the Eastern Archipelago and the coasts of the Indian Ocean during the fourteenth century'; Part II, *T'oung Pao*, vol. XVI (1915), pp. 61-159, 236-71, 374-92, 435-67, 604-26.

² Jung-pang Lo, 'Ming', pp. 155-6.

³ The principal source is the Life of Cheng Ho in the *Ming shih*, ch. 304, translated by Groeneveldt, pp. 167-70; but this Life contains exaggerations, errors, and contradictions.

Hsü Yü-hu, *Cheng Ho p'ing-chuan*, 'A Critical Biography of Cheng Ho' (Taipei, 1958), goes into great detail, but this useful book needs much revision, and must be read with caution. For a popular account see M. C. ff. Sheppard, 'The amazing voyages of Admiral Cheng Ho', in *The Straits Times Annual for 1955*, pp. 54-7.

⁴ Pelliot, 'Notes', p. 275; Hsü Yü-hu, p. 4.

⁵ Pelliot, 'Notes', pp. 275, 278-9.

⁶ Pelliot, 'Notes', pp. 275, 278; Hsü Yü-hu, pp. 141-2, 154. Pelliot had supposed that Ma Ho was born between 1350 and 1355.

⁷ Pelliot, 'Notes', pp. 275, 279; Hsü Yü-hu, p. 7.

⁸ Hsü Yü-hu, p. 153.

⁹ Pelliot, 'Notes', p. 275; Wang Hung-hsü, *Ming-shih kao*, 'Draft Ming History' (1723), f. 2 v.

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conferred on him the surname of Cheng, and promoted him to be a grand eunuch and superintendent of the office of eunuchs.¹

Since Cheng Ho was pre-eminent among the eunuchs for both good looks and sagacity, the emperor Ch'eng-tsu (Yung-lo) appointed him to be principal envoy and commander-in-chief of six great naval expeditions which sailed to the 'Western Ocean' between 1405 and 1421.² This was the first time that eunuchs (court officials) were appointed to command military forces.³

On succeeding to the throne in 1424 the emperor Jen-tsung stopped the naval expeditions as has been seen and during the following year appointed Cheng Ho to be defender of Nanking.⁴

The Hsüan-te emperor in 1428 ordered him to complete the construction of the incomparable Ta Pao-en temple at Nanking,⁵ and during 1430 appointed him to command his seventh and last expedition to the Western Ocean.⁶

After his return in 1433 Cheng Ho continued to be defender of Nanking,⁷ and during 1435, at the age of sixty-five, he died at Nanking, where his traditional tomb may still be seen.⁸ Cheng Ho served three emperors and was the most important ambassador of the Yung-lo and Hsüan-te periods.⁹

He commanded seven great expeditions and visited over thirty countries, in several of which he left inscriptions to commemorate his visits, including a trilingual inscription in Chinese, Tamil, and Persian found at Galle in Ceylon.¹⁰

He captured and took captive to China a recalcitrant king of Ceylon, a pirate chief of Palembang, and a pretender to the throne of Semudera;¹¹ and on two occasions he personally led his troops in battle.¹² If foreign rulers disobeyed his instructions to send tribute to the court of China, he resorted to the use of force,¹³ and the peoples of foreign countries were terrified of him.¹⁴ He enjoyed an unequalled record of brilliant achievement,¹⁵ and, as Ma Huan recorded, stood high in the emperor's favour. His expeditions to the

¹ Pelliot, 'Notes', p. 275, and n. 2; Hsü Yü-hu, pp. 7, 159.

² Huang Sheng-tseng, *Hsi-yang ch'ao-kung tien-lu*, 'Records of the Tributary Countries in the Western Ocean' (1520), ch. 1, f. 12v; Hsü Yü-hu, p. 5.

³ Duyvendak, 'Dates', p. 357.

⁴ Duyvendak, 'Dates', pp. 388, 389; Hsü Yü-hu, p. 176.

⁵ Hsü Yü-hu, p. 178.

⁶ Duyvendak, 'Dates', p. 390.

⁷ Hsü Yü-hu, p. 183.

⁸ Hsü Yü-hu, pp. 141-2, 184; Pelliot, 'Voyages', p. 239.

⁹ Groeneveldt, p. 170; *Ming-shih kao*, f. 4.

¹⁰ Groeneveldt, p. 170; Pelliot, 'Voyages', p. 448; Pelliot, 'Notes', pp. 309-10.

¹¹ Groeneveldt, pp. 168-9.

¹² *Ming-shih kao*, ff. 3, 3v.

¹³ Hsü Yü-hu, p. 17.

¹⁴ Hsü Yü-hu, p. 33.

¹⁵ *Ming-shih kao*, f. 4.

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Western Ocean constituted the greatest event of the early Ming period, and later envoys used his name to impress the peoples of the South Seas.¹

Cheng Ho is generally known in China by the title conferred on him in 1431, namely, San pao t'ai-chien, 'the grand eunuch San pao', where the two words 'San pao', meaning 'the Three Jewels', represent the *triratna* of Buddhism.² He was a man of remarkable character and appearance, and of great height and strength; in addition, he proved himself a great courtier, a most capable diplomat, an able organizer, a fearless commander, and a daring strategist.³ As a sea-adventurer⁴ the Chinese have not since produced his like. His name lived on in various parts of Asia; thus in Thailand there existed a temple of San pao where sacrifices were made to Cheng Ho; in Formosa his name was given to a species of ginger;⁵ and in Malacca the oldest well is still called the well of Sam po kung, as he is there known.⁶

Since the expeditions of this remarkable traveller constitute a stirring episode in the history of China, it is not unnatural that apocryphal accounts of the man and his exploits should appear in plays and novels, both mediaeval and modern.⁷ The most famous of such novels was *Hsi-yang chi* by Lo Mou-teng.⁸ Here, interspersed with much fable, lie valuable historical facts which are well worth elucidating; and, in particular, the author gives detailed lists of the tribute-presents which each foreign country gave to the court of China. Even a sober historian such as Huang Sheng-tseng tells us that Cheng Ho was nine feet tall and had a girth of ninety inches.⁹

But plays, novels, and accounts of Cheng Ho's exploits had only a limited appeal. The memory of his voyages scarcely survived among the mass of the Chinese people; literary references to them are scarce and extremely superficial; and, despite the enthusiasm of such a one as Ma Ching,¹⁰ the voyages seem never to have been part of the picture of a 'glorious past'. The accounts of the journeys made by Ma Huan, Fei Hsin, and Kung Chen, who all accompanied Cheng Ho, were never widely spread, and the notices in other

¹ Groeneveldt, p. 170.

² Pelliot, 'Notes', p. 279; Pao Tsen-peng, p. 32.

³ Tsui Chi, pp. 190, 191; Pelliot, 'Voyages', p. 448; Reischauer and Fairbank, p. 324.

⁴ Tsui Chi, p. 192.

⁵ Pelliot, 'Notes', pp. 279-80.

⁶ See the articles by M. C. H. Sheppard, 'Emperor Yung-lo and Admiral Cheng Ho', and 'Malacca in the Time of Cheng Ho', in *Malaya in History*, vol. III (1957), p. 114, and vol. IV (1958), p. 18, respectively.

⁷ Compare Pelliot, 'Notes', p. 280.

⁸ Lo Mou-teng, *Hsi-yang chi*, 'Records of the Western Ocean' (1957). Compare J. J. L. Duyvendak, 'Desultory Notes on the Hsi-yang chi', *T'oung Pao*, vol. XLII (1953), pp. 4, 5.

⁹ Huang Sheng-tseng, ch. 1, f. 12 v.

¹⁰ Ma Ching's Foreword of 1444 is translated below.

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books are scattered and difficult to find; indeed, Cheng Ho's biography in the *Ming shih* is the only coherent account which might come to the notice of the average scholar.¹

B. Outline of the expeditions

These extremely important sea-voyages were almost completely forgotten by later generations of Chinese, and they are known to us in only a most fragmentary way.

Most regrettably, the compilers of the *Shih-lu*, 'Veritable Records', of the Ming dynasty have caused confusion by combining the second and third expeditions into one expedition lasting from 1408 to 1411, and the *Ming shih*, 'Ming History', followed the *Shih-lu*.² In order to bring the expeditions up to the correct total of seven, the *Ming shih* invented one of 1424-5, which never took place, and Pelliot, following the *Ming shih*, wrongly included this so-called sixth voyage.³

Fortunately, the texts of two inscriptions on stones erected by Cheng Ho and his companions have now been discovered. The first is at Liu chia chiang in Kiangsu province erected on 14 March 1431, and the second at Ch'ang lo in Fukien province erected during the period from 5 December 1431 to 3 January 1432.⁴ The inscriptions prove conclusively that the dates of the second and third expedition were from 1407 to 1409, and from 1409 to 1411, respectively,⁵ and it follows that Pelliot's articles⁶ must be read with the greatest caution.⁷

Thanks to Duyvendak's exposition it can now be taken as settled that Cheng Ho's seven expeditions may be dated as follows, (1) 1405-7, (2) 1407-9, (3) 1409-11, (4) 1413-15, (5) 1417-19, (6) 1421-2, (7) 1431-3.⁸

Imperial edicts initiating the expeditions would be addressed to the grand eunuch Cheng Ho and other envoys. Cheng Ho was the nominal chief of all the expeditions which he was ordered to command, but he did not proceed on all of them himself, and he was not expected to visit all the more distant countries.⁹ According to an inscription, on each occasion he commanded

¹ Duyvendak, 'Dates', p. 395. Since Cheng Ho's expeditions constituted a major event in Chinese history, it is to be hoped that writers of universal histories and chronological tables, following the example of Debenham, will see fit to notice them in future publications.

² Duyvendak, 'Dates', p. 361.

³ Duyvendak, 'Dates', pp. 387, 389; Pelliot, 'Voyages', p. 300.

⁴ Duyvendak, 'Dates', pp. 342-3.

⁵ Duyvendak, 'Dates', p. 361.

⁶ Pelliot, 'Voyages', pp. 237-452; Pelliot, 'Notes', pp. 274-314; Pelliot, 'Encore à propos des voyages de Tcheng Houo', *T'oung Pao*, vol. xxxii (1936), pp. 210-22.

⁷ Compare Duyvendak, 'Dates', p. 372, n. 4.

⁸ Duyvendak, 'Dates', pp. 356, 361, 372, 373, 378, 385, 390.

⁹ Duyvendak, 'Dates', pp. 371, 372, 386, 387.

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several tens of thousands of government soldiers and more than a hundred ocean-going vessels; so that he had huge forces at his disposal, and the largest expedition comprised over three hundred ships and nearly twenty-eight thousand men.¹

Extensive preparations were needed for these large-scale expeditions, and some of the later ones required a year or more to get under way.² The officers, men, and ships were drawn from the fleet based on Nanking, from the squadrons attached to the coastal guard-stations, and from the fleet of the grain-transportation service.³ The expeditions ordinarily started in the autumn,⁴ and Cheng Ho would normally sail from Nanking, accompanying the foreign envoys returning home.⁵

The ships set out from the Pao-ch'uan ch'ang, 'Treasure-ship Yard', situated between the Yangtze and the Ch'in huai creek on the north-west of Nanking;⁶ and they sailed slowly down the Yangtze to Liu chia chiang at the mouth of the T'ai ts'ang river, now known as Liu creek, on the south bank of the Yangtze about thirteen miles above Wu sung near Shanghai. There Cheng Ho organized his fleet,⁷ while continuous sacrifices were made at the shrine of T'ien fei, the Celestial Spouse, goddess of the sailors.⁸

From four to eight weeks were taken on the journey to T'ai p'ing anchorage, in Ch'ang lo sub-prefecture, near the mouth of the Min river in Fukien province; there a stay of some months might be made in waiting until the following December-January for the favourable north-east monsoon; and there too prayers were offered to the gods.⁹ The fleet then left the China coast, travelling with sails spread at night.¹⁰

The expeditions usually lasted for about two years; ordinarily the fleet visited Qui Nhon in Champa, and then sailed to Surabaja in Java, where it stayed for some four months until the wind was favourable in July. It then proceeded by way of Palembang and Ceylon to Calicut, and on later expeditions to Hormuz, which was reached in the following January; returning in March, the fleet made a quick run home by way of Singapore strait and arrived in the Yangtze during July.¹¹ Ships detached from the main fleet paid

¹ Duyvendak, 'Dates', p. 344; Pao Tsen-peng, pp. 25, 26. See the notes on the seven expeditions below.

² Duyvendak, 'Dates', p. 356.

³ Jung-pang Lo, 'Ming', p. 157.

⁴ Compare Duyvendak, 'Dates', p. 376.

⁵ Compare Pelliot, 'Voyages', p. 294.

⁶ Compare Pelliot, 'Voyages', p. 307, and the Mao K'un Map (Mao Yüan-i, *Wu-pei chih*, 'Records of Military Preparations' (1621), ch. 240, f. 2v).

⁷ Duyvendak, 'Dates', p. 358.

⁸ Duyvendak, *Africa*, p. 29; Duyvendak, 'Dates', p. 346.

⁹ Pelliot, 'Voyages', pp. 281, 282, 307; Duyvendak, 'Dates', pp. 351, 391.

¹⁰ Duyvendak, 'Dates', pp. 345, 358.

¹¹ See below, Cheng Ho's routes, pp. 22-7.

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visits to, among other places, Bengal, East India, Arabia, and East African ports as far south as Malindi.¹

Cheng Ho presented valuable gifts to foreign rulers and officers,² and in addition to his diplomatic duties he organized a considerable amount of state trading, for instance, in Thailand, Calicut, and Aden, as Ma Huan mentions; and on the return journey foreign ambassadors, bringing articles of tribute, would be offered passages in Cheng Ho's ships.³ According to the text of Ma Huan which is here translated, on each occasion that Cheng Ho's ships visited Malacca, the Chinese set up a cantonment for security purposes, and detached ships re-assembled there for the return to China.

C. *The first expedition, 1405-7*

The edict ordering the expedition was dated 11 July 1405, and addressed to Cheng Ho and his colleagues Wang Ching-hung and others.⁴ The fleet comprised three hundred and seventeen ships, including sixty-two 'treasure-ships', and the number of (subaltern) officers, soldiers of the flag-army, braves, civilians, buyers, and clerks amounted to twenty-seven thousand eight hundred and seventy men.⁵ On this voyage Cheng Ho visited Java, Semudera (Lho Seumawe, Lhokseumawe), Lambri (Atjeh), and Ceylon, before proceeding to his principal objective, Calicut, where the king Shami-ti-hsi (Samutiri) was reigning. Cheng Ho or his associates also went to Champa on the outward voyage, and in addition they probably touched at Malacca, Aru (Deli), and Quilon.⁶ We may presume that a stay of about four months was made at Calicut, say from December 1406 to April 1407. Presents of silks with gold decoration were given to the princes and chiefs of the countries visited; and those who did not submit to Chinese overlordship were subdued by military force. Envoys from Calicut, Semudera, Quilon, Aru, Malacca, and other kingdoms returned in Cheng Ho's suite to render homage and bring tribute of products from their countries.⁷

The outstanding event of the expedition occurred at San Fo-ch'i (Sri Vijaya, Palembang) on the return journey, when Cheng Ho's forces defeated the bands of the pirate chief Ch'en Tsu-i, killing over five thousand men,

¹ See below, *Places visited by Cheng Ho*, pp. 19-22.

² See, for instance, *Ming-shih kao*, ff. 2 v, 3 v, 4.

³ Duyvendak, 'Dates', p. 379.

⁴ Duyvendak, 'Dates', p. 356; Pelliot, 'Voyages', p. 273. But in 1403 ships for the intended expedition had already been ordered, and in the third moon of 1405 (30 March to 28 April) a preliminary order decreed that Cheng Ho and others should take command (Duyvendak, 'Dates', pp. 356-7).

⁵ Pao Tsen-peng, p. 25; Duyvendak, 'Dates', p. 357, n. 5.

⁶ Duyvendak, 'Dates', pp. 358-60. 'Samutiri' is Malayalam, 'the Sea-King', corrupted by the Portuguese into 'Zamorin'.

⁷ Pelliot, 'Voyages', p. 274; Pelliot, 'Notes', pp. 281, 282.

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burning or taking seventeen ships, and capturing Ch'en Tsu-i, who was later presented to the emperor and decapitated at the capital, Nanking.¹ Cheng Ho returned to Nanking on 2 October 1407,² being delayed for about three months, we presume, by the operations against Ch'en Tsu-i.

D. The second expedition, 1407-9

This was an unimportant expedition, presumably required for the solemn institution of the new king of Calicut, Ma-na Pieh-chia-la-man (Mana Vikraman); though Cheng Ho was the official chief of the expedition, he did not actually accompany it, and it was directed by his associates.³ The order for the expedition was dated the thirteenth (probably) day of October 1407, and directed to the three eunuchs Cheng Ho, Wang Ching-hung, and Hou Hsien.⁴ They commanded two hundred and forty-nine ships and an unknown number of troops.⁵ The expedition perhaps did not sail till January or February 1408; it visited Thailand, Java, Aru, Lambri, Coimbatore (Koyampadi), Kayal (on the Tambrapani delta), Cochin, and Calicut, also A-po-pa-tan (Puttanapur ?), and perhaps Champa in addition.⁶ Presumably a stay of about four months was made at Calicut, possibly from December 1408 to April 1409.

The kings of all the above countries were presented with brocades and gauzes, and at Calicut the commander of the Chinese fleet erected an inscription to commemorate the intercourse between India and China.⁷ The fleet probably returned to China in the late summer of 1409.⁸

E. The third expedition, 1409-11

Though technically the third voyage, and so described in the inscriptions, this was actually the second voyage under Cheng Ho's personal leadership.⁹ The order, dated during the period from 16 January to 14 February 1409, directed Cheng Ho, Wang Ching-hung, and Hou Hsien to visit the seas of the west.¹⁰ They commanded thirty thousand government troops, and forty-eight ships.¹¹ The fleet sailed from Liu chia Chiang during the ninth moon

¹ Duyvendak, 'Dates', pp. 347, 352; Pelliot, 'Voyages', pp. 274-5; Pelliot, 'Notes', pp. 281-2.

² Duyvendak, 'Dates', p. 356.

³ Duyvendak, 'Dates', pp. 359, 371-2. The name 'Mana Vikraman' later became a title of the rulers of Calicut.

⁴ Duyvendak, 'Dates', pp. 362, 364.

⁵ Pao Tsen-peng, pp. 25-6.

⁶ Duyvendak, 'Dates', pp. 365-7; Pelliot, 'Voyages', p. 290. The *Ming shih* under title 'Kan-pa-li' places A-po-pa-tan near Coimbatore and Quilon.

⁷ Pelliot, 'Notes', p. 283; Duyvendak, *Ma Huan re-examined* (Amsterdam, 1933), p. 51.

⁸ Duyvendak, 'Dates', pp. 368-9.

⁹ Duyvendak, 'Dates', pp. 371-2.

¹⁰ Duyvendak, 'Dates', p. 373.

¹¹ Pao Tsen-peng, pp. 25, 26.

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(9 October to 6 November 1409); and arrived at Ch'ang lo in the tenth moon (7 November to 6 December 1409); they put to sea during the twelfth moon (5 January to 3 February 1410) from Wu hu men (Five Tigers strait, in the entrance to the Min river in Fukien province) and, hoisting twelve sails, reached Champa with a fair wind after ten days and nights.¹

The expedition visited Champa, Java, Malacca, Semudera, Ceylon, Quilon, Cochin, and Calicut, while an incidental stop was made at Poulo Sembilan, near Tamiang on the east coast of Sumatra.² In Ceylon, Cheng Ho set up an inscription in three languages, Chinese, Tamil, and Persian, bearing the date of 15 February 1409, the day on which it was composed in China. It commemorates gifts to a Buddhist temple in Ceylon by Cheng Ho and others in the name of the emperor, and expresses gratitude to the Buddha of Ceylon for a safe and tranquil voyage on Cheng Ho's former visit to the country, that is, on his first expedition.³ The principal incident occurred in Ceylon on the return voyage in 1411, when a violent conflict took place between the forces of Cheng Ho and those of the Sinhalese 'king' Ya-lieh-k'u-nai-erh (Alagakkonara), *de facto* ruler of the Rayigama kingdom, near Colombo; after several battles Cheng Ho won a complete victory; and the king, his wife, children, and principal functionaries were captured, and taken to China.⁴ Cheng Ho returned to the capital on 6 July 1411, and later presented his Sinhalese captives to the court, whereupon the emperor graciously released them, and gave permission for them to return to their own country.⁵

F. The fourth expedition, 1413-15

The order, dated 18 December 1412, was directed to Cheng Ho and others,⁶ who on this occasion had at their disposal sixty-three ships and twenty-eight thousand five hundred and sixty men.⁷ It is probable that Cheng Ho started from Nanking during the autumn of 1413 and left the coast of Fukien in January 1414.⁸ The expedition visited Champa, Kelantan, Pahang, Java, San Fo-ch'i (Palembang), Malacca, Aru, Semudera, Lambri, Ceylon, Kayal, the Maldive islands, Cochin, Calicut, and Hormuz, in addition to Pi-la and

¹ Duyvendak, 'Dates', p. 361; Pelliot, 'Voyages', pp. 281-2.

² Duyvendak, 'Dates', p. 373; Pelliot, 'Voyages', p. 286.

³ Duyvendak, 'Dates', pp. 368-9, 372; Pelliot, 'Notes', pp. 309-10.

⁴ Duyvendak, 'Dates', p. 368; Pelliot, 'Voyages', pp. 278-80; Pelliot, 'Notes', pp. 283-5; Hsü Yü-hu, pp. 103-4; C. W. Nicholas and S. Paranavitana, *A Concise History of Ceylon* (Colombo, 1961), p. 303; E. F. C. Ludowyk, *The Story of Ceylon* (London, 1962), p. 73.

⁵ Duyvendak, 'Dates', p. 373; Pelliot, 'Voyages', p. 280.

⁶ Duyvendak, 'Dates', p. 373.

⁷ Pao Tsen-peng, pp. 25-6.

⁸ Duyvendak, 'Dates', p. 376.

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Sun-la (both unidentified).¹ This was the first occasion that Cheng Ho's ships travelled further than India, while a branch expedition sailed to Bengal.² Cheng Ho received imperial instructions on this voyage to lead his forces against a usurper named Sekandar, who had snatched the throne of Semudera from Sultan Zain Al-'Abidin, and to restore the rightful king.

Cheng Ho defeated the usurper's forces comprising several thousand men, pursued him as far as Lambri, captured him with his wife and child, and conveyed him to China. Cheng Ho returned from this expedition on 12 August 1415, and the prisoner Sekandar was offered to the emperor at the gate of the palace, and was later executed.³ This was Ma Huan's first voyage under Cheng Ho.

G. The fifth expedition, 1417-19

The initial order for the expedition was dated 28 December 1416; and the avowed object was to escort back to their respective countries the ambassadors from nineteen kingdoms who had arrived on 19 November 1416, and to present awards to their rulers.⁴ Pelliot, identifying Nan-wu-li and Nan-p'o-li with Lambri, reduced the number to the following eighteen countries: Champa, Pahang, Java, Palembang, Malacca, Semudera, Lambri, Ceylon, the Maldive islands, Cochín, Calicut, Sha-li-wan-ni (Cannanore ?), Hormuz, La-sa (La'sa, near Mukalla), Aden, Mogadishu, Brava, and Malindi.⁵ We have no information as to the numbers of the ships and personnel.

Probably Cheng Ho's fleet left the China coast in the autumn of 1417;⁶ and on this occasion, for the first time, his ships reached the east coast of Africa.⁷ It was on this expedition, apparently, that Cheng Ho was compelled to make a display of military force, at Mogadishu and at La'sa.⁸ His fleet returned to China on 8 August 1419, and the ambassadors who arrived with him were received at court during the eighth moon (21 August to 19 September 1419).⁹

¹ Duyvendak, 'Dates', p. 373; Pelliot, 'Voyages', pp. 294, 326; Pelliot, 'Notes', p. 285.

² Duyvendak, *Africa*, p. 30.

³ Pelliot, 'Voyages', pp. 290-3; Pelliot, 'Notes', pp. 312-14; Duyvendak, 'Dates', pp. 373, 376-8; *Ming-shih kao*, f. 3 v.

⁴ Duyvendak, 'Dates', p. 378; Pelliot, 'Voyages', p. 294.

⁵ Pelliot, 'Voyages', pp. 294-9; Pelliot, 'Notes', pp. 286-8.

⁶ Duyvendak, 'Dates', p. 381. The imperial edict of 10 November 1421, ordering certain officers to provide the necessary ships and supplies for the envoys, was published by Kung Chen; see Hsiang Ta, *Kung Chen: Hsi-yang fan-kuo chih*, 'Kung Chen: Records of the Foreign Countries in the Western Ocean' (Peking, 1961), p. 15; Pelliot, 'Voyages', p. 342; Duyvendak, 'Dates', p. 385.

⁷ Pelliot, 'Voyages', p. 299.

⁸ Duyvendak, 'Hsi-yang chi', p. 18. Duyvendak doubted whether the Chinese fleets were universally welcomed, as the Chinese sources represent.

⁹ Duyvendak, 'Dates', p. 382.

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H. *The sixth expedition, 1421-2*

The emperor's order was dated 3 March 1421,¹ and on this voyage ambassadors from Hormuz and the other countries, who had been in attendance at the capital for a long time, were conducted home again.² Pelliot concluded that they returned to the following countries: Malacca, Aru, Semudera, Lambri, Coimbatore, Kayal, Ceylon, the Maldivé islands, Cochin, Calicut, Hormuz, Dhufar (Dhafar, Djofar, Zafar), La'sa, Aden, Mogadishu, and Brava; while Thailand also was visited on the return journey.³ The expedition included forty-one ships, and an unknown number of officers and men.⁴

There is evidence that Cheng Ho was still in China as late as 10 November 1421, and he returned to the capital on 3 September 1422. It is impossible that Cheng Ho could have personally visited all these far-off countries in the course of this extremely short voyage of less than ten months. Duyvendak suggested that Cheng Ho visited only some of these countries, and that he arrived back while his subordinates were still visiting the more distant regions. We know that the fleet was divided at Semudera and that the eunuch Chou (Chou Man ?) went on to Aden.⁵ This was Ma Huan's second voyage under Cheng Ho.

I. *The seventh expedition, 1431-3*

This, the last of the great maritime expeditions, was despatched by the Hsüan-te emperor, by virtue of his order dated 29 June 1430, addressed to Cheng Ho and others,⁶ and we are more fully informed about the particulars. Our knowledge is derived principally from a valuable fragment called *Hsia Hsi-yang*, 'Down to the Western Ocean', written by one Chu Yün-ming, and included in his book entitled *Ch'ien-wen chi*, 'A Record of Things once Heard' (c. 1526).⁷

In the following translation the notes within round brackets are those of

¹ Duyvendak, 'Dates', p. 385.

² Duyvendak, 'Dates', p. 354.

³ Duyvendak, 'Dates', p. 386; Pelliot, 'Notes', pp. 289-90, considering the list of countries mentioned in *Ming shih*, p. 7107, row 4. There being no mention of Java, it remains uncertain whether that country was visited or not.

⁴ Pao Tsen-peng, pp. 25-6.

⁵ Duyvendak, 'Dates', pp. 385-7.

⁶ Duyvendak, 'Dates', p. 390. An imperial edict of 25 May 1430, ordering certain officers to provide ships and supplies for the envoys, was published by Kung Chen; see Hsiang Ta, *Kung Chen*, p. 16, and Pelliot, 'Voyages', pp. 342-3.

⁷ The fragment appeared in a compilation called *Chi-lu hui-pien*, 'A Collection of Records', published by Shen Chieh-fu about 1617, and may be found in ch. 202, ff. 36 v-38. An English translation by Mayers can be seen in the *China Review*, vol. III (1875), pp. 329-30, and a French translation by Pelliot in *T'oung Pao* (1933), pp. 305-11, but both these translations contain certain inaccuracies. The fragment was republished by Hsiang Ta, *Kung Chen*, pp. 55-7, and though this also contains certain inaccuracies, his punctuation is very helpful.

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Chu Yün-ming, while the insertions within square brackets represent additions by the present editor.

Down to the Western Ocean

During the Yung-lo period [1403-24] government armies were frequently sent down to the Western Ocean. [Certain of the] envoys then composed two books, [called] 'One Survey of the Ocean's Shores'¹ and 'The Overall Survey of the Star Raft',² in order to record the strange things which they heard. Having now obtained [a text on] a matter [which occurred] during the Hsüan-te period [1426-35], I have just made a note of the outlines.

Special reports to the throne

(The documents are lengthy, and I have not made any record of them.)

Numbers of men

Officers; troops serving under the banners; group-leaders;³ helmsmen; anchor-men; interpreters; business-factors; accountants; doctors; iron-anchor mechanics; caulkers; scaffold-builders, and other craftsmen; sailors; boatmen,⁴ and others; a total of twenty-seven thousand five hundred and fifty officials.

Itinerary

In the fifth year of the Hsuan-te [period], in the intercalary twelfth moon, on the sixth day [19 January 1431], the ships started from Lung wan [Dragon bay, at Nanking]. On the tenth day [23 January 1431] they came to Hsü shan [Pei hsin chou, Deer island?]. (They hunted.)⁵ On the twentieth day [2 February 1431] they passed out through Fu tzu men [Pai mao sha channel]. On the twenty-first day [3 February 1431] they reached Liu chia Chiang. In the sixth year, in the second moon, on the twenty-sixth day [8 April 1431] they arrived at Ch'ang lo Chiang [Ma wei anchorage in the Min river]. In the eleventh moon, on the twelfth day [16 December 1431] they went to Fu tou shan [near Fu chou?]. In the twelfth moon, on the ninth day [12 January 1432] they passed out through Wu hu men [in the entrance to the Min river]. (They travelled for sixteen days.) On the twenty-fourth day [27 January 1432] they came to Chan city [Qui Nhon, in Champa]. In the seventh year, in the first moon, on the eleventh day [12 February 1432] the ships started. (They travelled for twenty-five days.) In the second moon, on the sixth day [7 March 1432] they reached Kua-wa⁶ (Ssu-lu-ma-i) [Surabaya]. In the sixth moon, on the sixteenth day [13 July 1432] the ships started. (They

¹ *Ying-yai i-lan*. No doubt the author intended a reference to the *Ying-yai sheng-lan*, 'The Overall Survey of the Ocean's Shores', by Ma Huan. The author was wrong in thinking that Ma Huan and Fei Hsin were 'envoys'.

² *Hsing-ch'a sheng-lan* by Fei Hsin.

³ *Huo ch'ang*, literally 'fire-leaders'; a group of ten men formed a 'fire' (a mess). 'The superintendent of the [compass] needle' was also called *huo ch'ang* (Chang Hsieh, *Tung Hsi yang k'ao*, 'A Study of the Eastern and Western Oceans' (1618. Shang-wu yin-shu-kuan edition, Shanghai, 1936), p. 117).

⁴ We translate Pelliot's emendation *shao* (Giles, no. 9758).

⁵ 'Colossal hunts . . . would simulate vast military maneuvers' (L. Olschki, *Marco Polo's Asia* (Berkeley-Los Angeles, 1960), p. 152).

⁶ Kua-wa is a mistake for Chao-wa, Java.

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travelled for eleven days.) On the twenty-seventh day [24 July 1432] they arrived at Chiu Chiang [Old haven, Palembang]. In the seventh moon, on the first day [27 July 1432] the ships started. (They travelled for seven days.) On the eighth day [3 August 1432] they came to Man-la-chia [Malacca]. In the eighth moon, on the eighth day [2 September 1432] the ships started. (They travelled for ten days.) On the eighteenth day [12 September 1432] they reached Su-men-ta-la [Semudera, near Kuala Pasai]. In the tenth moon, on the tenth day [2 November 1432] the ships started. (They travelled for thirty-six days.)¹ In the eleventh moon, on the sixth day [28 November 1432] they arrived at Hsi-lan shan [Ceylon] (Pieh-lo-li) [Barberyn or Berberyn, Beruwala]. On the tenth day [2 December 1432] the ships started. (They travelled for nine days.)² On the eighteenth day [10 December 1432] they came to the country of Ku-li [Calicut].

On the twenty-second day [14 December 1432] the ships started. (They travelled for thirty-five days.) In the twelfth moon, on the twenty-sixth day [17 January 1433] they reached Lu-i-hu-mo-ssu [Hormuz].³ In the eighth year, in the second moon, on the eighteenth day [9 March 1433] the ships started to return across the ocean. (They travelled for twenty-three days.) In the third moon, on the eleventh day [31 March 1433] they arrived at Ku-li [Calicut]. On the twentieth day [9 April 1433] the ships of the great fleet started to return across the ocean. (They travelled for seventeen days.) In the fourth moon, on the sixth day [25 April 1433] they came to Su-men-ta-la [Semudera, near Kuala Pasai]. On the twelfth day [1 May 1433] the ships started. (They travelled for nine days.) On the twentieth day [9 May 1433] they reached Man-la-chia [Malacca]. In the fifth moon, on the tenth day [28 May 1433] they arrived in the K'un-lun ocean [the seas around Poulo Condore, Con Son] on the return journey. On the twenty-third day [10 June 1433] they came to Ch'ih k'an [Ke Ga point]. On the twenty-sixth day [13 June 1433] they reached Chan city [Qui Nhon]. In the sixth moon, on the first day [17 June 1433] the ships started. (They travelled for two days.) On the third day [19 June 1433] they arrived at Wai lo shan [Culao Re]. On the ninth day [25 June 1433] they saw Nan ao shan [Nan ao tao]. On the tenth day [26 June 1433] in the evening they sighted Wang lang hui shan [Tung ting tao, Chapel island].⁴ In the sixth moon, on the fourteenth day [30 June 1433] they came to the Ch'i t'ou yang [Ch'i t'ou yang, Fa tu channel].⁵ On the fifteenth day [1 July 1433] they reached Wan tieh [Ta mao shan ?].⁶ On

¹ It should be twenty-six days.

² Apparently the writer was either a poor reckoner, or inconsistent in his method of reckoning; but there may have been a convention according to which both days were included if the ships started early and arrived late in the day.

³ The second character is really a fish-hook indicating that the characters *lu* and *hu* have been wrongly transposed.

⁴ Compare Cheng Jo-tseng, *Ch'ou-hai t'u-pien*, 'Illustrated Compendium of Seaboard Strategy' (1562), ch. 1, f. 14, where, however, the map marks four islands in this immediate vicinity.

⁵ See *China Sea Pilot*, vol. III, p. 319.

⁶ Lü P'an and Lu Ch'eng-en, 'Ping ch'ien', 'A Military Manual' (1674. Bodleian Library, Oxford, Backhouse MS 578), f. 5 v, represent that Tieh wan shan, presumably the same island, lay further north than Miao chou men, the channel between Roundabout island and the Ketau peninsula.

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the twentieth day [6 July 1433] they passed Ta [and] Hsiao Ch'ih [Ta Ch'i shan, Gutzlaff island, and Hsiao Ch'i shan, Hen and Chicks]. On the twenty-first day [7 July 1433] they entered T'ai ts'ang [Liu ho]. (The later stages I did not record.) In the seventh moon, on the sixth day [22 July 1433] they arrived at the capital [Peking]. On the eleventh day [27 July 1433], [the emperor] bestowed vestments of honour and paper money of high value.

Names of the ships

Such kinds of names as Ch'ing ho [Pure Harmony], Hui k'ang [Kind Repose], Ch'ang ning [Lasting Tranquillity], An chi [Peaceful Crossing], and Ch'ing yuan [Pure Durability].¹

There were also ships designated by the various series 'one', 'two', and other [numbers].

Designations of the ships

They were of types² such as 'great eight-oared' [ships] and 'secondary eight-oared [ships]'.

Valuable as this fragment is, it does not give the whole story; Ma Huan, Fei Hsin, and Kung Chen all took part in this expedition; each adds something of importance or interest; and we can supplement it from other sources as well.

More than a hundred large ships were included in the fleet;⁴ at Liu chia chiang and at Ch'ang lo temples were renovated, new statues of the divinities set up, and religious ceremonies attended by officers and men;⁵ a stay of three days was made at the Nicobar islands;⁶ and the foreign envoys who had arrived in Cheng Ho's suite were received by the emperor on 14 September 1433.⁷ It is impossible to state with certainty which countries were personally visited by Cheng Ho during the course of the expedition; Chu Yün-ming mentions only eight countries, Champa, Java, Palembang, Malacca, Semudera, Ceylon, Calicut, and Hormuz; while the biography of Cheng Ho in the *Ming shih* gives the total as seventeen, and Kung Chen enumerates twenty. In addition visits by Cheng Ho are mentioned in the

¹ Literally, 'Pure Distance'; but the second character connotes that the ship was safe and sound for travelling great distances.

² We translate *lei* (Giles, no. 6853), 'a class' instead of *shu* (Giles, no. 10,075), 'a number'.

³ *Pa lu* (Giles, nos. 8504; 7389); Pelliot thought the expression might be a transcription of the Malay word *perahu*, a boat or ship; we doubt this; for *perahu* would seem to be the word transcribed *pa-la-hu* (Giles, nos. 8505; 6654; 4921) by Chinese writers; L. Audemard, *Les Jonques Chinoises* (Rotterdam, 1957), p. 62, plate 15, reproduces a sketch of such a boat; and it was only forty feet long and resembled a fishing boat rather than a great ocean-going junk.

⁴ Duyvendak, 'Dates', p. 349.

⁵ Duyvendak, 'Dates', pp. 346, 351-2.

⁶ Rockhill, Part II, p. 375.

⁷ Duyvendak, 'Dates', p. 390.

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Ming shih notices of four other countries, namely, Coimbatore, La'sa, Mogadishu, and Brava; and we know from Fei Hsin that the Nicobar islands were visited. Our provisional conclusion must be that visits were paid by Cheng Ho's emissaries, and not by Cheng Ho himself, to the following seventeen countries: Thailand, Aru, Nagur, Lide, Lambri, the Nicobar islands, Bengal, Quilon, Cochin, Coimbatore, the Maldivé islands, Dhufar, La'sa, Aden, Mecca, Mogadishu, and Brava.

Pelliot took the view that the eunuch Hung Pao did not go with the main fleet to Java, but took a detached ship, with Ma Huan on board, to Bengal, and joined the main fleet again at Calicut. At any rate, Chinese ships of this expedition traversed the whole of the Indian Ocean, proceeding as far as Bengal, Hormuz, Aden and Brava.¹

The most interesting episode may be seen in the voyage of Chinese emissaries from Calicut to Mecca, as described by Ma Huan and more shortly by Kung Chen.²

In the main, Cheng Ho's sailing dates would be dictated by the monsoons; that is, he sailed westward between October and March and eastward between April and September; and from Chu Yün-ming's fragment we get the impression that he performed all his ambassadorial duties in a leisurely manner on the outward voyage, and then made a quick run home during the single period of the south-west monsoon.

There are still a number of points on which we have no information; for instance, the route followed on the voyage from Champa to Surabaja, from Surabaja to Palembang, and from Calicut to Hormuz, or the direction from which the East African ports were approached.

This was Ma Huan's third expedition under Cheng Ho.

J. Places visited by Cheng Ho

The principal list is that given by the *Ming shih* in the biography of Cheng Ho.³ But we cannot be sure that he personally visited all the thirty-seven countries mentioned. Moreover, we must make some amendments to the list as it stands; we have to eliminate P'o-ni [Brunei] which was erroneously included,⁴ and Hsi yang So-li and Nan-wu-li, which Pelliot took to be duplicates of So-li [Chola] and Nan-p'o-li [Lambri], respectively;⁵ and we have to add three names which have been erroneously omitted, A-tan [Aden], Pu-la-wa [Brava], and Ts'ui lan shan [the Nicobar islands]. Small places such as Pulau Aur have been omitted from the list overleaf.

¹ Pelliot, 'Voyages', pp. 304-5, 324.

² Hsiang Ta, *Kung Chen*, p. 46.

³ *Ming shih*, ch. 304; compare Groeneveldt, p. 170.

⁴ Pelliot, 'Notes', p. 286.

⁵ Pelliot, 'Voyages', pp. 296, 329.

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A-lu [Aru, Deli district in East Sumatra]
A-po-pa-tan¹ [Puttanapur in South India ?]
A-tan [Aden]
Chan ch'eng [Chan city, Champa, Central Vietnam]
Chen la [Cambodia]
Chi-lan-tan [Kelantan]
Chia-i-lo [Kayal in South India]
Chiu chiang [Old haven, Palembang]
Chu-pu [Gumbo in East Africa]
Hsi-lan Shan [Ceylon]
Hsiao Ko-lan [Quilon]
Hsien Lo [Thailand]
Hu-lu-mo-ssu [Hormuz]
Kan-pa-li [Koyampadi, Coimbatore]
Ko-chih [Cochin]
Ku-li [Calicut]
Kua-wa² [Java]
La-sa [La'sa, near Mukalla in Arabia]
Li-tai [Lide, Meureudu in North Sumatra]
Liu shan [Maldivé and Laccadive islands]
Ma-lin [Malindi in East Africa]
Man-la-chia [Malacca]
Mu-ku-tu-shu [Mogadishu in East Africa]
Na-ku-erh [Nagur, Peudada district in North Sumatra]
Nan-p'o-li [Lambri, Atjeh district in North Sumatra]
Pang-ko-la [Bengal]
P'eng-heng [Pahang]
Pi-la³ [Bitra atoll in the Laccadive islands ?]
Pu-la-wa [Brava in East Africa]
Sha-li-wan-ni⁴ [Jurfattan, Cannanore ?]
So-li⁵ [Chola country, Nagapattinam]
Su-men-ta-la [Semudera, Lho Seumawe district in North Sumatra]
Sun-la³ [Chetlat island in the Laccadive islands ?]
Ta Ko-lan [Kayankulam near Quilon ?]
T'ien fang [The Heavenly Square, Mecca]

¹ Under the title 'Kan-pa-li' the *Ming shih* (p. 7922, row 1) notes that 'neighbouring regions' were A-po-pa-tan and Quilon.

² The usual mistake for Chao-wa.

³ Pi-la and Sun-la were in the Maldivé or Laccadive islands (*Ming shih*, p. 7922, row 1).

⁴ See Pelliot, 'Voyages', p. 297.

⁵ We follow Pelliot, 'Voyages', p. 328, in identifying So-li with Hsi yang So-li, 'So-li in the Western Ocean', but the *Ming shih* differentiates them. The Chola country was part of the Vijayanagar empire.

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Tsu-fa-erh [Dhufar in Arabia]

Ts'ui-lan shan [Nicobar islands]

It will be noticed that the list contains no places in the Philippine islands or Borneo, and that the farthest places mentioned are Java in the south, and Hormuz, Aden, and Malindi in the west.

But this does not conclude the matter; for we are indebted to Ma Huan for the important information that the main fleet was sometimes divided into squadrons intended for different countries. Thus he states in his initial poem, referring to the expedition of 1413-15, that a part of the fleet went from Semudera to Ceylon, and Pelliot supposed that another part travelled to Bengal.¹ Ma Huan states in his description of Aden that on the expedition of 1421-2 the fleet was divided at Semudera and the eunuch Chou went from there with several ships to Aden.² He states in his description of Mecca that on the expedition of 1431-3 the grand eunuch Hung was in command of a division of the fleet at Calicut, and from there sent some emissaries, perhaps including Ma Huan, to Mecca;³ and he states in his description of Malacca that ships which had been despatched to various countries re-assembled there, awaiting a favourable wind for returning to China.⁴ Moreover, Pelliot took the view that in 1431-3 the grand eunuch Hung travelled independently of Cheng Ho to Bengal and Calicut;⁵ and that it was probably in detached ships that members of the expeditions went from Hormuz to Aden, the East African ports, and perhaps to La'sa.⁶

The fact that ships were detached from the main fleet may explain why Fei Hsin notices many more places than Ma Huan; but it also opens up more exciting possibilities, such as the possibility that Chinese visited Australia before the Dutch pioneers of the early seventeenth century. In 1943 it was reported that a few years previously an ancient map of northern Australia, compiled by the captain of a Chinese *bêche-de-mer* boat in 1426,⁷ had been found in Peking, but recent enquiries have failed to disclose the present whereabouts of the map.⁸

¹ Pelliot, 'Voyages', pp. 322, 324.

² Pelliot, 'Voyages', p. 322, n. 1.

³ Pelliot, 'Voyages', p. 303.

⁴ Pelliot, 'Voyages', p. 400.

⁵ Pelliot, 'Voyages', p. 324.

⁶ Pelliot, 'Voyages', p. 313. Pelliot took the view that Aden and these other places were visited from Hormuz, but he produced no evidence to support it; on the other hand, Ma Huan says that Dhufar and Aden were reached from Calicut, and Fei Hsin states that Dhufar, La'sa, and Aden were reached from Calicut, Mogadishu from Quilon, and Brava from Ceylon (Rockhill, Part II, pp. 607, 610, 611, 613, 614, 616, 617); moreover, the statement in the Mao K'un Map that it took one hundred and fifty watches to travel from Male to Mogadishu suggests that the voyage was sometimes made by way of the Maldive islands.

⁷ *Walkabout* magazine of Melbourne, date 1 November 1943.

⁸ Dr Helen Wallis kindly made these enquiries.

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Similarly, an image of Shou lao, a Taoist god of long life, was found in 1879 near Darwin; but it is not certain when it was made, or when or by whom it was taken to Australia.¹ Evidence from aboriginal sources also suggests that Australia was visited by Bugis from Makasar in the eighteenth century, and before that by a people called 'Baijini', but we do not know whether the Baijini were Indonesians or Chinese, or when they arrived.² However, the opinion has been expressed that an Arab, Chinese, or Malay almost certainly sighted Australia in pre-European times;³ also that, if a Chinese ship sailed on from Timor to Australia, it was more likely than not a ship detached from a fleet commanded by Cheng Ho.⁴ The matter cannot be taken any further for the present.

K. Cheng Ho's routes

Without striving after excessive detail, we may reasonably enquire what were the general courses followed by Cheng Ho's main fleet; and, in default of express mention, we are compelled to make a number of presumptions based on our knowledge of his movements and on the routes followed by other navigators at about the same time.

In all probability the sea-route from Wu sung followed the coast as far as Nan hui, passed west of Ta Ch'i shan (Gutzlaff island) and between the islands of Chou shan (Chusan) and Chin t'ang (Kintang), round the Ch'i t'ou (Ketau or Ketow) peninsula, between the islands of Fo tu (Fa tu) and Liu heng (Lu wang), and west of the Mei shan (Mesan) and Chiu shan (Kue shan) groups as far as T'an t'ou shan (Montague island, 29° 10' N), thence west of the Yü shan (Hieshan) islands, east of the T'ai chou (Tai chau) islands, Pei chi (Pi ki) shan, and Nan chi (Nam ki) shan, as far as T'ai shan (Tai islands, 26° 59' N), where ships steered south-west towards Pei ling ssu chiao (Ragged point, 26° 22' N, 119° 57' E), and followed the coast in order to enter the Min river, where Cheng Ho broke his journey for about eight months.⁵

Proceeding south from the Min river about January with the north-east

¹ C. P. Fitzgerald, 'A Chinese Discovery of Australia?' in *Australia Writes* (1953), ed. T. Inglis Moore, pp. 76-8.

² P. M. Worsley, 'Early Asian Contacts with Australia', *Past and Present*, no. 7 (1955), p. 2.

³ O. H. K. Spate, 'Terra Australis—Cognita?', *Historical Studies: Australia and New Zealand*, vol. VIII, no. 29 (1957), p. 19.

⁴ Fitzgerald, pp. 85-6. It is interesting to note that both 'Shun-feng hsiang-sung' (anonymous), 'Fair Winds for Escort' (c. 1620. Bodleian Library, Oxford, Laud MS Or. 145) (f. 36) and Chang Hsieh (p. 112) give sailing instructions for the voyage from Java to Timor.

⁵ The Mao K'un Map, ff. 5-9; compare British Admiralty Charts 1199, 1759, 1754, 1761.

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monsoon, the fleet would pass west of Hsi Ch'uan tao (Tung sha), east of Niu shan (Turnabout island) and south-east of Nan p'eng ch'ün tao (Lamock islands), whence longer runs were made to Ta hsing chien (Tai sing cham, Pedro Blanco, 22° 19' N, 115° 07' E), to Ta chou tao (Tinhosa island, 18° 40' N, 110° 28' E) off the coast of Hai nan island, and to Wai lo shan (Culao Re, 15° 23' N, 109° 05' E) off the coast of Vietnam, whence the fleet entered the harbour of Qui Nhon (13° 46' N), for a visit of two weeks.¹

Travelling south past Yang island (Poulo Gambir), the fleet made Ling shan (the holy mountain, Cape Varella, 12° 54' N), and from there sailed to Java, but we are not told which course was followed, and we presume that Cheng Ho took the same route as Khubilai's fleet in 1292; that is, he sailed south, past the East and West Tung islands (Catwick islands), to Kan lan island (Olive island, Serasan, 2° 31' N, 109° 03' E) in the South Natuna group, after which he would pass through Api passage and travel south to Chia-li-ma-ta (Karimata, 1° 32' S, 108° 54' E) and Kou-lan (Gelam, 2° 53' S, 110° 10' E); we presume that Cheng Ho proceeded south to Chi-li-men (Karimundjawa islands, 5° 52' S, 110° 27' E) and then steered south-east-by-south for the 'great mountain' of Pa-na (Djapara), that is, Murjo, turning east-south-east past Na-ts'an (Lasem) and Tu-pan (Tuban) to the north-east corner of Java, and then south-east-by-south past Chi-li-shih (Gresik, Gersik) to Su-lu-ma-i (Surabaja), where the fleet stopped for about four months, between March and July.²

From Surabaja Cheng Ho went by boat up the Kali Mas as far as Chang-ku (Canggu), whence he travelled by land to Man-che-po-i (Majapahit), as Ma Huan explains.

We have no express mention of Cheng Ho's route from Surabaja to Chiu Chiang (Palembang); but we presume that he passed through P'eng chia (Bangka, Banka) strait; and in order to get there he may have travelled westward along the north coast of Java, passing Tan-mu (Demak), Wu chüeh (Pekalongan), Che-li-wen (Tjirebon) and Chia-lu-pa (Sunda Kelapa, now Djakarta), then crossing to the Lan-pang (Lampung) country in Sumatra, and following the coast northward past the mouth of the Tu-lu Pa-wang (Wai Tulang Bawang, 4° 23' S); on the other hand, he may have returned to the Karimundjawa islands, sailed straight to San mai island (Maspari, Lucipara, 3° 13' S, 106° 13' E) at the southern entrance to Bangka

¹ The Mao K'un Map, ff. 9-12 v; compare British Admiralty Charts 1761, 1760, 1962, 2661 a. Chang Hsieh, pp. 118-22, gives concise statements of the main routes from Amoy to Vietnam, Cambodia, Thailand, the Malay peninsula, Sumatra, and Java, among other places in south-east Asia.

² Groeneveldt, p. 151; the Mao K'un Map, ff. 12 v-14; Huang Sheng-tseng, ch. 1, ff. 7-7 v; Chang Hsieh, p. 122; 'Shun-feng', f. 28; compare British Admiralty Charts 2661 a, 2660 a, 941 a, 1653 b.

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strait, and reached the mouth of the Palembang river near the northern end of the strait, where he stopped for three days.¹

From Palembang he probably sailed north-west-by-north, passing to the west of Kuan island (Berhala, $0^{\circ} 52' S$, $104^{\circ} 24' E$), San fo hsü (Three Buddhas islands, Alang Tiga), and Ao yü island (Buaja), and then, following the Sumatran coast to the mouth of the Kan-pa anchorage (Sungai Kampar), travelled through the strait between Jen i rocks (Kundur) and Niu shih² rocks (Mendol), east of Kuei island (Rangsang) and west of Great Karimun into the Malacca strait; here he kept to the east side, passing P'i-sung island (Pulau Pisang), and She ch'ien mountain (Bukit Banang) on the way to visit Man-la-chia (Malacca), and here the fleet stayed for a month.³

After leaving Malacca Cheng Ho continued along the east side of the strait, passing Chia wu island (Cape Rachado), as far as Mien hua island (Cotton island, Bukit Jugra), and here Chinese navigators steered approximately west-north-west to take them through the east-west channel between the South sands and North sands, to the north of Chi ku island (Aruah islands), whence they kept to the Sumatran side of the strait, travelling between Shuang islands (the Brothers), passing Tan island (Berhala, $3^{\circ} 46' N$, $99^{\circ} 30' E$), A-lu anchorage (Sungai Deli), Kan-pei anchorage (Kumpai roadstead), Tan-yang (Tamiang, $4^{\circ} 25' N$), and Pa-lu head (Udjung Peureula), and giving a wide berth to Chi shui wan head (Udjung Djamboaje, Diamond point, $5^{\circ} 15' N$), before turning approximately south-east to Su-men-ta-la (near Kuala Pasai), where Cheng Ho arrived on 12 September 1432, and stopped for six weeks.⁴

From Kuala Pasai they steered approximately north-west, passed north of Ch'ieh-nan-mao mountain (Weh) and Lung hsien island (Rondo), and, after sighting Ts'ui lan islands (the Nicobar islands), steered due west along parallel $6^{\circ} 38' N$ till they saw the peak of Ying ko tsui (Parrot's Beak, Namunakuli) appear over the horizon; about eight miles from Ceylon they turned south and travelled round to the west side of the island, passing south of Shih ch'eng rocks (Little Basses ridge) and Chu p'ai rocks (Great Basses ridge), south of Ta fo t'ang (Great Buddha hall, Dondra head), Ma-li-k'an (Weligama) and Ya-li (Galle), and ending this stage of the journey with a

¹ The Mao K'un Map, ff. 14-14 v; 'Shun-feng', ff. 38, 39 v; compare British Admiralty Chart 941 a. The Mao K'un Map does not represent that the main fleet made the journey of about 50 miles up the river to the town of Palembang; and we therefore presume that it stopped at the mouth of the river.

² We follow the reading of 'Shun-feng', ff. 53 v, 54; Huang Sheng-tseng writes (Niu) Wei; in the Mao K'un Map the character is not written distinctly.

³ The Mao K'un Map, ff. 15-16; Huang Sheng-tseng, ch. 1, f. 13; 'Shun-feng', f. 54; compare British Admiralty Charts 941 a, 1358.

⁴ The Mao K'un Map, ff. 16-17 v; Huang Sheng-tseng, ch. 2, ff. 4-4 v; 'Shun-feng', ff. 26, 45; compare British Admiralty Charts 1358, 1353.

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short stay of four days at Pieh-lo-li (Barberyn, Beruwala, 6° 28' N, 79° 58' E).¹

From Beruwala the main fleet sailed for Kan-pa-li head (Cape Comorin, 8° 05' N, 77° 33' E) in India, and visited Hsiao Ko-lan (Quilon) and Ko-chih (Cochin) before reaching Ku-li (Calicut, 11° 15' N), where Cheng Ho stopped for four days.²

At Calicut began the last stage of the journey to Hu-lu-mo-ssu (Hormuz); we do not know the exact routes which were taken; the navigator might steer a course straight to Chia-la-ha (Kalhat, 22° 42' N) in Arabia, and then proceed up the east coast past Tieh-wei (Tiwi), Ku-li-ya (Quraiyat), Ma-shih-chi (Muscat), Kuei island (Fahl islet), and Ya shu tsai chi islands (Daimaniyat islands) to Sa-la-mo island (As Salama, Great Quoin, 26° 30' N, 56° 30' E);³ or he might travel up the west coast of India, past Hsieh-li (Hili, Mount Delly, 12° 02' N), Mang-ko-nu-erh (Mangalore, 12° 50' N), A-che-tiao (Anjidiv island, 14° 45' N), Ch'an-ta-wu-erh (Sindapur, Goa, 15° 28' N), Ting-te-pa-hsi (Dandabasi, Deogarh harbour, 16° 23' N), P'o-erh-ya (Boria headland, 17° 23' N), Ch'i-erh-mo-erh (Jaimur, Chaul, 18° 33' N), and Ma-ha-yin (Mahim, 19° 37' N), to about 20° 15' N, and then, steering west-by-north and sighting the hills of Kathiawar, make straight for Tu-li Ma-hsin-tang (Ras Masandam, 26° 23' N, 56° 32' E), whence it was a short run due north to Hormuz (27° 03' N, 56° 27' E), the terminus of the voyage, reached on 17 January 1433.⁴

On the return journey a start was made in March; and since the fleet visited Calicut, Semudera, and Malacca, we presume that substantially the same route was followed in the reverse direction as far as the Karimun islands in the Singapore strait; here the main fleet travelled east of those islands through Lung ya men (Singapore Main strait), past Tan-ma-hsi (Tumasik, Singapore), between the Lo han (Lima) islands and Pai chiao (White rock, Pedra Branca, 1° 19' N, 104° 24' E), and then turned north-by-east to pass east of Tung Hsi Chu mountains (Pulau Aur, 2° 26' N, 104° 31' E), whence a run was made to K'un-lun mountains (Poulo Condore);

¹ The Mao K'un Map, ff. 17 v-19 v; Huang Sheng-tseng, ch. 2, f. 9; 'Shun-feng', ff. 45 v-46; compare British Admiralty Charts 70, 813. See also appendix 5, The voyage from Kuala Pasai to Beruwala.

² The Mao K'un Map, ff. 19 v-20; 'Shun-feng', f. 46 v; compare British Admiralty Chart 70.

³ The Mao K'un Map, ff. 20-2; 'Shun-feng', ff. 47 v-48; compare British Admiralty Charts 2851, 753.

⁴ The Mao K'un Map, ff. 20-2; 'Shun-feng', f. 47 v; Ferrand, *Textes*, vol. II, pp. 519, 521-6; Mao Yüan-i, ch. 240, f. 24; A. Cortesão, *The Suma Oriental of Tomé Pires* [1515] (London, 1944), vol. 1, p. 55, n. 1; Yule and Burnell, under 'Choul, Chaul', p. 210b; compare British Admiralty Charts 827, 826. In the name 'Ma-hsin-tang', we read *tang* for *fu*.

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here they steered approximately north-north-east, sighted Hao ting mountain (Nui be ?) almost straight ahead, and near Ch'ih k'an mountain (Point Ké Ga, $10^{\circ} 41' N$, $107^{\circ} 59' E$) turned north-east to follow the coast of Indo-China past Lo wan head (Cape Padaran) and Ch'ieh-nan-mao (Hon Heo mountain, $12^{\circ} 24' N$), back to Ling shan (Cape Varella),¹ whence, we presume, substantially the same route as before was followed in the reverse direction; but the by-passing of Beruwala and the Min river will reduce the distance by thirty-two miles.

Summarizing the details relating to the seventh expedition which lasted from 19 January 1431 to 7 July 1433, we find that the journey from Nanking to Liu chia chiang covered one hundred and eighty-four miles and occupied twelve days of sailing; we are not told how many days were occupied on the voyage of four hundred and two miles from Liu chia chiang to the mouth of the Min river; the figures for the other stages of the journey may be set out as follows: from the mouth of the Min river to the mouth of Qui Nhon harbour, one thousand and forty-six miles, occupying fifteen days; from the mouth of Qui Nhon harbour to Surabaya, one thousand three hundred and eighty-three miles, occupying twenty-three days; from Surabaya, by way of Karimundjawa islands, to the mouth of the Palembang river, seven hundred and fifty-six miles, occupying eleven days; from the mouth of the Palembang river to the mouth of the Malacca river, three hundred and fifty-four miles, occupying seven days; from the mouth of the Malacca river to Kuala Pasai, three hundred and seventy-five miles, occupying ten days; from Kuala Pasai to Beruwala, one thousand and ninety-six miles, occupying twenty-six days; from Beruwala to Calicut, four hundred and eight miles, occupying eight days; and from Calicut, by way of Mangalore and Kalhat to Hormuz, one thousand four hundred and sixty-one miles, occupying thirty-four days.

The whole voyage from Nanking to Hormuz extended to seven thousand four hundred and sixty-five miles; while the stages from the mouth of the Min river to Hormuz covered six thousand eight hundred and seventy-nine miles and occupied one hundred and thirty-four days of sailing, the average speed being fifty-one and one-third miles a day.

On the homeward voyage lasting from 9 March to 7 July 1433, a shorter route was taken, cutting out the long voyage to Java; and the various stages were as follows: Hormuz to Calicut, one thousand four hundred and sixty-one miles, occupying twenty-two days of sailing; Calicut to Kuala Pasai (by-passing Beruwala), one thousand four hundred and ninety-one miles, occupying fourteen days; from Kuala Pasai to Malacca, three hundred and seventy-five miles, occupying eight days; we are not told how many days

¹ The Mao K'un Map, ff. 13-16; 'Shun-feng', f. 26; Lü P'an and Lu Ch'eng-en, f. 41 v; compare British Admiralty Charts 2403, 2660a.

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were taken on the voyage of nine hundred and eighty-three miles from Malacca to Qui Nhon harbour; finally, the journey from Qui Nhon harbour to Liu chia chiang (by-passing the Min river), one thousand four hundred and twenty-nine miles, took twenty days.

The whole voyage extended to five thousand seven hundred and thirty-nine miles: the stages between Hormuz and Malacca, three thousand three hundred and twenty-seven miles, taking forty-four days of sailing, at an average speed of about seventy-six miles a day; and the stage between Qui Nhon harbour and Liu chia chiang, one thousand four hundred and twenty-nine miles, taking twenty days of sailing, at an average speed of about seventy-one miles a day. The fastest run was made on the homeward journey from Calicut to Kuala Pasai, one thousand four hundred and ninety-one miles being covered in fourteen days, at an average speed of one hundred and six and a half miles a day;¹ and the slowest run occurred on the outward journey from the mouth of the Malacca river to Kuala Pasai, when it took ten days to cover three hundred and seventy-five miles, at an average speed of thirty-seven and a half miles a day.

These figures must be taken as provisional and approximate, since we do not know for certain which route was followed on the voyage from Champa to Surabaya, from Surabaya to Palembang, or from Calicut to Hormuz; and we do not know how far from land the ships usually sailed, and how much they 'cut the corners' when entering and leaving harbour.²

L. Cheng Ho's ships

We have little reliable information on this subject; for, although most of Cheng Ho's ships were built at the Lung chiang yard at Nanking, a century later the naval constructors there were unable to build such large sea-going ships and did not even know their specifications.³

The ships used on Cheng Ho's expeditions were known as 'treasure-ships', because they brought back 'unnamed treasures of untold quantities'.⁴ In connection with the first expedition (1405-7), 'sixty-two large ships'

¹ In the Mao K'un Map the fastest run was made from Ta chou tao (Tinhosa) to Ta hsing chien (Pedro Blanco); the distance is 346 miles, and the number of watches, as amended, amounted to 25; thus, the speed was 138 miles a day, or 13.8 miles in 1 watch, or 5.75 knots.

² Hsü Yü-hu took a very different view regarding the places visited and the routes followed by Cheng Ho; for instance, he considered that on the fourth expedition (1413-15) a visit was paid to Mogadishu (p. 133), that on the fifth expedition (1417-19) visits were paid to Borneo, Mecca, and Gumbo (p. 134), and that on the sixth expedition (1421-2) a visit was paid to Bengal (p. 135); moreover, he always drew Cheng Ho's route as passing round the north coast of Ceylon (pp. 130-6).

³ Jung-pang Lo, 'Ming', p. 159; Pao Tsen-peng, p. 2.

⁴ Pao Tsen-peng, p. 33.

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were built, according to the *Ming shih*; but it should not be imagined that this represented the total number under Cheng Ho's command, or that all the ships were of one class.

According to Chinese sources, the Ming navy included over two hundred and fifty treasure-ships, and these were divided into at least seven classes, that is, treasure-ships forty-four *chang* four *ch'ih* long with nine masts, horse-ships thirty-seven *chang* long with eight masts, supply-ships twenty-eight *chang* long with seven masts, billet-ships (troop-transports) twenty-four *chang* long with six masts, combat-ships eighteen *chang* long with five masts, four-masted ships about fourteen *chang* six *ch'ih* long, and three-masted ships about thirteen *chang* long.¹

In addition, there are references to two-thousand-*liao* ships, one-thousand-five-hundred-*liao* ships, and big and secondary eight-oared ships, while Kung Chen mentions water-boats and water-tankers;² we cannot at present say how these vessels are to be fitted in to the above classification.

According to a rule observed in the sixteenth century the maximum length of a one-masted ship was five *chang* six *ch'ih* (fifty-six feet) and of a two-masted ship eight *chang* nine *ch'ih* (ninety feet).³

Many sketches of Chinese ships may be found in the books of Cheng Jo-tseng,⁴ Wang Ch'i,⁵ and Ch'en Meng-lei,⁶ and selections have been reproduced in the publications of Worcester,⁷ Audemard,⁸ and Pao Tsen-peng;⁹ but these sketches have little value, since we do not know the dates of the sketches or the dimensions of the ships; further, the sketches are sometimes so grotesquely inaccurate that they give no approximate idea of the actual size; for instance, Audemard points out that the ship represented

¹ Jung-pang Lo, 'Sung', p. 493; Pao Tsen-peng, pp. 7, 13, 29. Hsü Yü-hu (p. 21) gave a table enumerating thirty-six nine-masted treasure-ships, seven hundred eight-masted horse-ships, two hundred and forty seven-masted supply-ships, three hundred six-masted troop-transports, and one hundred and eighty five-masted combat-ships. A *chang* measured ten feet two inches.

² Jung-pang Lo, 'Ming', p. 151, n. 4; Pao Tsen-peng, pp. 28, 29; Hsiang Ta, *Kung Chen*, p. 12 (Kung Chen's Foreword). Kung Chen writes a character unknown to modern dictionaries; the radical is *chou* (Giles, no. 2446), 'a boat', and the phonetic *che* (Giles, no. 542), a particle. A *liao* weighed about five hundred pounds.

³ Pao Tsen-peng, p. 12.

⁴ Cheng Jo-tseng, ch. 13.

⁵ Wang Ch'i and Wang Ssu-i, *San-ts'ai t'u-hui*, 'The Three Forces Illustrated Collection' (1609), section *Ch'i-yung*, ch. 4.

⁶ Ch'en Meng-lei and others, *Ch'in-ting ku-chin t'u-shu chi-ch'eng*, 'Illustrated Collection of Books ancient and modern, Imperially commissioned' (1726, reprinted Shanghai, 1885-8), ch. 97.

⁷ G. R. G. Worcester, *The Junks and Sampan of the Yangtze* (Shanghai, vol. 1, 1947; vol. 11, 1948), vol. 11, plate 121, facing p. 340.

⁸ Audemard, pp. 36-86.

⁹ Pao Tsen-peng, pp. 65-75 (Chinese numeration).

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in his first sketch was said to carry eight hundred warriors, whereas it appears to be adequately filled by fifteen men.

The largest sea-going ship of which we so far have a sketch would seem to be that represented in the Catalan map of 1375;¹ this carries five masts, and, if we apply sixteenth-century criteria, would be about one hundred and eighty feet long; Pao Tsen-peng shows a four-masted ship,² presumably about one hundred and fifty feet long, and a three-masted ship,³ as represented in Mao Yüan-i's stellar diagrams, presumably about one hundred and thirty-three feet long; these last he calls 'smaller' treasure-ships.⁴

The only types of ships specified by Chu Yün-ming as taking part in the seventh expedition were 'great eight-oared [ships]' and 'secondary eight-oared [ships]'; we should expect him to mention the largest types of ship, but if this 'eight-oar' (*pa lu*) was identical with the *pa-la-hu* (perhaps Malay *perahu*) described by Ch'en Meng-lei and also by Lü P'an and Lu Ch'eng-en, it was a speedy vessel of forty feet, the terror of the pirates.⁵

The illustration appearing in the present volume (Fig. 2) is reproduced from a book by M. Médard; but it has not been possible to ascertain the origin, and it may be modern. It purports to show one of Cheng Ho's sea-going ships, and, since it has four masts, it was presumably about one hundred and fifty feet long.⁶

Fleets were made up of fifty, or even of one hundred, ships of different sizes belonging to different classes to suit the requirements of the task in hand.⁷ Some ships bore names, such as *Ch'ing ho*, 'Pure Harmony', and the like; while others were designated merely by numbers, 'one', 'two', and so on.

In the opinion of Pao Tsen-peng, the fleet on the first expedition comprised three hundred and seventeen ships, on the second expedition two hundred and forty-nine, on the third expedition forty-eight, on the fourth expedition sixty-three, on the sixth expedition forty-one, and on the seventh expedition more than one hundred ships; the total for the fifth expedition being unknown.⁸ The figures for the first and second expeditions suggest that extensive exploratory voyages were being undertaken.

A major point of interest concerns the size of Cheng Ho's largest ships;

¹ See Bagrow, plates 35, 36, or Worcester, vol. 1, plate 4.

² Pao Tsen-peng, plate 1, p. 65 (Chinese numeration).

³ Pao Tsen-peng, plate 2, p. 66 (Chinese numeration).

⁴ In modern times the largest sea-going junks are the 'Pechili trader' and the 'Foo-chow pole junk', four-hundred-ton vessels, one hundred and eighty feet long (I. A. Donnelly, *Chinese Junks* (Shanghai, 1924), pp. 29, 97).

⁵ Audemard, pp. 61-2.

⁶ M. Médard, *À propos des voyages aventureux de Fernand Mendez Pinto* (Peking, 1935), facing p. 134.

⁷ Pao Tsen-peng, p. 17.

⁸ Pao Tsen-peng, p. 25.

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Fig. 2. Sketch of Cheng Ho's ship

Cheng Ho and his expeditions

according to the *Ming shih* they were forty-four *chang* four *ch'ih* (four hundred and fifty-two feet) long and eighteen *chang* (one hundred and eighty-three feet) broad; but many knowledgeable persons have rejected these figures, if only for the reason that it was not practicable to build a safe wooden ship exceeding about three hundred feet in length;¹ and, pending the emergence of convincing evidence, it seems reasonable to conclude that Cheng Ho's largest ships were probably about three hundred feet long and about one hundred and fifty feet broad, and displaced about three thousand one hundred tons;² but the texts contain no explicit information concerning the draught of his ships, though it cannot have been less than the twenty feet drawn by Yüan ships, and it might have been considerably more, since the Portuguese carrack *Madre de Dios*, captured by the English in 1592, displaced two thousand tons and drew thirty-one feet.

It is also interesting to know that Cheng Ho took cavalry with him, and that he had water-tankers, which were presumably classified as supply-ships.

M. Personnel

A Chinese authority describes the composition of an expeditionary force comprising twenty-seven thousand four hundred and eleven persons.³ In the first part of his description he sets out the numbers of certain more important functionaries; these are, seven principal envoys (grand eunuchs), ten assistant envoys (lesser eunuchs), fifty-three eunuchs, two brigadiers,⁴ ninety-three captains,⁵ one hundred and four lieutenants,⁶ one hundred and three sub-lieutenants,⁷ two secretaries, one senior secretary of the Board of Revenue,⁸ two precedence adjudicators of the court of State Ceremonial,⁹ one astrological officer,¹⁰ four astrologers, and one hundred and eighty medical officers and medical orderlies; the total number of these functionaries he represents to be six hundred and eight persons, while the correct number appears to be five hundred and sixty-two. In the second part of his

¹ C. E. Gibson, *The Story of the Ship* (London-New York, 1958), p. 145.

² Compare *The Mariner's Mirror*, vol. XLVI, no. 2 (1960), p. 147. By way of comparison it may be noted that none of Vasco da Gama's ships exceeded three hundred tons, and that even in 1588 the largest English merchant ship did not exceed four hundred tons (Gibson, p. 133).

³ See Hsü Yü-hu, p. 26.

⁴ *Tu chih hui* (Giles, nos. 12,050; 1791; 5149). The exact translations of these mediaeval terms remain uncertain.

⁵ *Chih hui*.

⁶ *Ch'ien hu*, '[commander of] a thousand individuals'.

⁷ *Pai hu*, '[commander of] a hundred individuals'.

⁸ *Hu pu lang chung* (Giles, nos. 4959; 9484; 6777; 2875).

⁹ *Hung lu ssu hsü pan* (Giles, nos. 5269; 7412; 10,295; 4771; 8595).

¹⁰ *Yin yang kuan* (Giles, nos. 13,224; 12,883; 6341). We presume that he took the astronomical observations.

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description he gives the figure of twenty-six thousand eight hundred and three to include the various classes of the rank and file; that is, the brigade of banner-men,¹ the irregular troops,² the power corps,³ the military forces, the supernumeraries,⁴ the boatmen,⁵ the buyers, and the clerks.

Chu Yün-ming, as we have seen, specifies certain other classes, namely, group-leaders, helmsmen, anchor-men, interpreters, business-factors, accountants, doctors, iron-anchor mechanics, caulkers, and scaffold-builders; he also mentions sailors as well as boatmen, but does not explain the difference between the two classes.⁶

It is clear that a serious effort was made to care for the health of the expedition. A large contingent of medical attendants was carried, in the proportion of one medical attendant to one hundred and fifty men; moreover, it was realized that if men are to be equal to their duties, they must have a sufficiency of food and drink. Kung Chen tells us that fresh water was collected from the streams near the anchorages and taken in boats to be stored in water-tankers.⁷ In spite of that, however, the mortality was appalling, and 'the people who met their deaths (on these expeditions) may be counted by the myriads'.⁸

Ming armies were largely composed of banished criminals, their sons or grandsons.⁹ Most Western writers denounced Chinese cowardice, but Gaspar de Cruz (1570) asserts that 'they attack bravely'.¹⁰

As seamen, the Chinese sailors excelled; as navigators, they had available for use the lead-and-line, sailing directions, the cross-staff, the compass, and maritime diagrams, and they ascertained their longitude by noting the number of watches which elapsed during the run at a speed estimated from the time taken by the ship to pass a floating object.¹¹

¹ *Ch'i chiao* (Giles, nos. 1045; 1302).

² *Yung shih* (Giles, nos. 13,457; 9992).

³ *Li shih* (Giles, nos. 6980; 9992). We presume that these 'strength soldiers' performed tasks for which unusual power was required, perhaps operating the grapnel-claw or the giant trebuchet.

⁴ *Yu ting* (Giles, nos. 13,615; 11,253).

⁵ *Min shao* (Giles, nos. 7908; 9761); but for the second character we read *shao* (Giles, no. 9758). We presume these were the sailors in general.

⁶ The *Ming Shih-lu*, 'Veritable Records', contain several references to the bestowal of rewards upon various classes of persons after their return from foreign expeditions; see Hsü Yü-hu, pp. 32, 44, 165 (relating to 1411), p. 54 (relating to 1419), p. 172 (relating to 1420), p. 175 (relating to 1423).

⁷ Hsiang Ta, *Kung Chen*, p. 12 (Kung Chen's Foreword).

⁸ Duyvendak, 'Dates', p. 396.

⁹ Duyvendak, *Africa*, p. 31; Duyvendak, 'Dates', p. 392.

¹⁰ Boxer, p. 146.

¹¹ These aids and methods were substantially the same as those usually employed by the ordinary ship-master in contemporary Europe, but the latter had the more accurate

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N. Retrospect

Cheng Ho's expeditions, in part diplomatic, in part commercial, constitute a major event in Chinese history. In conducting huge fleets of organized naval forces, the greatest vessels then afloat, from China to Africa, he performed an unprecedented large-scale feat of navigation.¹ He efficiently handled, at sea and ashore, a force of thirty thousand marines and gunners, who, though their duties were primarily ceremonial, gave a good account of themselves when it was necessary to take punitive action, in Palembang, Semudera, and Ceylon.

As a diplomat, he made himself famous for his combination of tact and firmness, giving rich presents to foreign rulers, inducing them to acknowledge the nominal suzerainty of the Chinese emperor, and, placing his ships at their disposal, persuading them to present tribute, personally or by deputy, at the capital; after which more often than not he conducted them back to their own countries.

He carried out lucrative trading operations on so extensive a scale that in one Indian port the pricing of Chinese goods took not less than three months.

He brought back abundant information regarding the geography of Asia and the sea-routes,² and also collected valuables and rarities, namely, gems, minerals, drugs, and plants, as well as obtaining, directly or indirectly, animals such as lions, leopards, horses, giraffes, oryx, zebras, camels, ostriches, and nilgai, some of which had not previously been seen in China.³

His exploits were attended by results of great significance, for China became the first power, with the strongest navy, in Asia, and the principal trading country of the Far East; while among the indirect results of his expeditions may be counted, on the one hand, the prolific junk-traffic to

maritime charts, might measure time with a sand-glass, and perhaps had the mariner's quadrant. See also Appendix 3, Miscellaneous notes on ships, seamanship, navigation, and cognate matters.

¹ See Reischauer and Fairbank, pp. 321-5. The editor is indebted to Dr J. Needham, F.R.S. for several of the reflections which follow.

² Though an explorer, Cheng Ho did not discover anything which had not been known to Indonesians, Indians, or Arabs for over a thousand years. Speaking generally, the Chinese now had a fair knowledge of the coastal areas in southern Asia and had learnt the names of about seven hundred places, but they still knew little about the interior, except in Burma and Tongking.

³ Of other large animals, the tiger and the elephant had been known to the Chinese from ancient times, and the rhinoceros since the beginning of the Christian era, but no record has been found of the importation of the hippopotamus, mentioned for the first time, it is believed, by Chao Ju-kua [*Chu-fan chih*, 'Records of Foreign Peoples' (1226. Shang-wu yin-shu kuan edition, Ch'ang-sha, 1940)].

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south-east Asia,¹ and, on the other hand, the establishment of a school of foreign languages.²

But the Ming court failed to grasp the possibilities of sea-power and lost interest in maritime expansion; so the great expeditions were not followed up but remained isolated *tours de force*, mere exploits; and an outstanding period of greatness in China's history came to an end.

2. MA HUAN AND HIS BOOK

A. *Life of Ma Huan*

We know little about Ma Huan; and that which we know is derived from the documents printed in Feng Ch'eng-chün's edition of the *Ying-yai sheng-lan*. His family, surnamed Ma, lived in Kuei chi, a district of Shao hsing city, about twenty-four miles south-east of Hang chou and seven miles from the southern shore of Hang chou bay, one of the principal centres of navigation in those days.

Probably he was not less than twenty-five years of age when he received his first appointment to Cheng Ho's expedition in 1413, and he may have been eighty years old when his book was published in 1451; hence we may provisionally fix the date of his birth as about 1380. His derogatory description of himself as a 'mountain-woodcutter' need not be taken literally, but it indicates that his family occupied a humble station in life. He must have received a good school education, since there are classicisms in his book, and he was acquainted with the contents of Wang Ta-yüan's *Tao-i chih-lüeh*, of certain Chinese classics, and of 'Buddhist books'; and Pelliot considered him quite capable of writing the Foreword of 1416 and the introductory Poem;³ but the style of his Chinese composition was simple and unliterary. At some unknown date Ma Huan adopted the Muslim faith; and he assumed the *ku*, or courtesy-name, of Tsung-tao.

We know nothing about his occupation; but as a young man he must have fallen in with someone who instructed him in the Arabic script and in either the Arabic or Persian language;⁴ and he became a proficient translator and

¹ Fairbank and Teng, pp. 201, 205.

² Duyvendak, 'Dates', p. 360 n. 3. The School of Oriental and African Studies, London, possesses ten manuscript vocabularies of the sixteenth century; those of the Korean, Malay, and Cham languages have been published in the School's *Bulletin*; the others still await attention; the present writer has transcribed the Chinese characters, and these transcriptions may be made available to interested scholars.

³ Duyvendak, on the other hand, regarded him as an 'unlearned' person incapable of writing the Foreword or the Poem (Duyvendak, *Ma Huan*, pp. 9, 13).

⁴ Perhaps 'the corrupt Arabic of the seamen and merchants' which was used for commercial purposes from China to the Red Sea in Marco Polo's time (Olschki, p. 234).

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interpreter. As a result Ma Huan was appointed to Cheng Ho's staff as an official translator when the latter received his order in 1412 to take command of an expedition destined for the first time to proceed as far as Hormuz. This was the first of the three expeditions on which he travelled to various foreign countries in the suite of Cheng Ho. Ma Huan must then have reached the age of about thirty-two.

Ma Huan and his colleague Kuo Ch'ung-li made local journeys within the territories which they visited, recorded notes on all that they saw, and preserved their notes on their return to China. The most important places seen during this expedition of 1413-15 were Champa, Java, Palembang, Malacca, Semudera, Ceylon, Calicut, and Hormuz.

On his return to China in 1415 Ma Huan at once arranged in book form the notes made by himself and Kuo Ch'ung-li during their travels, and he completed his book and wrote the Foreword and Poem in 1416, being the first of Cheng Ho's subordinates to commence writing his account of foreign countries. Presumably it was now, too, that Ma Huan and Kuo Ch'ung-li made efforts to spread abroad the knowledge which they had acquired about conditions in overseas lands.

For some unknown reason Ma Huan did not go with the expedition of 1417-19; but he accompanied the sixth expedition of 1421-2, visiting, among other places, Malacca, Semudera, Ceylon, Calicut, and Hormuz, and possibly Dhufar and Aden. This was his second voyage under Cheng Ho, and after his return in 1422 he may have added to his book the descriptions of Dhufar and Aden; while at some time after 1424 he introduced into his Foreword the emperor Ch'eng-tsu's posthumous title which had been conferred during that year, that is to say, T'ai-tsung Wen Huang-ti, 'The Grand Exemplar The Cultured Emperor'. No doubt he now anticipated that his journeys to the 'Western Regions' were over, particularly when the emperor Jen Tsung in 1424 countermanded all further expeditions. But in 1430 the Hsüan-te emperor ordered Cheng Ho to proceed on his seventh and last expedition (1431-3), and Ma Huan was again attached to Cheng Ho's suite.

On this occasion Ma Huan voyaged in a detached fleet under the eunuch Hung Pao straight from China to Bengal, which he visited during the first half of 1432, travelling from Chittagong to Sonargaon near Dacca, and thence to the capital, then at Gaur. From Bengal they sailed to Calicut, and Ma Huan was probably one of the seven Chinese emissaries sent by the eunuch Hung Pao from Calicut to Mecca; for, as a Muslim, Ma Huan would feel the urge to make the pilgrimage; he describes Mecca in his book, and in his Foreword, which he could have altered if necessary, he claims to speak from personal experience; Ku P'o in his Afterword states that Ma Huan

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visited Mecca; and, finally, certain precise details given in the book indicate that he actually went there.¹

Since the journey from Calicut to Mecca took three months and since a year elapsed before they arrived back in China during July 1433, we may provisionally conclude that they left Calicut about July 1432, came to Mecca about October 1432, stayed there for some three months till about January 1433, and reached Calicut in time to join Cheng Ho's fleet which sailed from there on 9 April. This was Ma Huan's third and last voyage, and it may have been on this occasion that he visited Dhufar and Aden. Kung Chen and Fei Hsin also served on this expedition of 1431-3.

Ma Huan never went to East Africa; but he claimed to have visited twenty Asian countries; twelve of these have already been mentioned, and Aru, Lambri, Cochin, and the Maldivé islands may have been visited either in 1414-15 or in 1421-2; but we have no express information as to the dates when he visited the other four countries, namely, Thailand, Nagur, Lide, and Quilon.

After his return to China in 1433 Ma Huan incorporated in his book the description of Mecca, possibly that of Dhufar and Aden, and the mention of relations with Palembang in 1424 and 1425. His friend Kuo Ch'ung-li collaborated with him in the preparation of the book; but, as it is always Ma Huan who signs the documents, we may conclude that it was he who composed the record of the observations which the two men had made. We may presume that his book *Ying-yai sheng-lan* received its final form about 1434-6, since in 1434 King Chen wrote the Foreword of his almost identical book called *Hsi-yang fan-kuo chih*, and in 1436 Fei Hsin wrote the Foreword of his *Hsing-ch'a sheng-lan*. It seems probable that Ma Huan's manuscript, like that of Fei Hsin, was 'circulated', and this might account for the existence of different copies.

We presume that Ma Huan and Kuo Ch'ung-li made attempts to have the book printed in 1444, and that, to this end, Ma Ching wrote his Foreword in that year. Eventually, Kuo Ch'ung-li, through his friend Lu T'ing-yung, prevailed on the imperial clerk Ku P'o to write an Afterword, and the book was published, Pelliot thought, in 1451; but this edition has long disappeared. Ma Huan died, we presume, about 1460 and, despite the fulsome eulogies of Ma Ching and Ku P'o, his book was never widely read, he never achieved fame, and he had been forgotten before 1773, when the imperial library of the Ch'ien-lung emperor was being formed.²

¹ On the other hand Duyvendak (*Ma Huan*, p. 73, n. 5) thought that Ma Huan did not go to Mecca.

² On Ma Huan and his book see Rockhill, Part II, pp. 69-73; Duyvendak, *Ma Huan*, pp. 9, 13, 73, n. 5; Pelliot, 'Voyages', pp. 257-64; Pelliot, 'Encore', p. 211.

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We cannot glean much about Ma Huan as a man. He could hardly have been free at first from the subconscious sentiment of contempt which the Chinese felt for the 'barbarian'; and he was too narrow-minded to believe the marvels recounted by Wang Ta-yüan. But he candidly admits that he changed his views; and he makes many appreciative remarks about the people and the things which he observed. He appears a simple-minded person, he loathed violence, and was aghast at the frequency of judicial killings in Java.

As readers then expected of travel-writers, he cultivated a spirit of enquiry for 'some new thing', and so, in addition to more important matters, he gives us much folk-lore and stories such as that of Moses and the golden calf at Calicut, as well as descriptions of unusual objects such as jack-fruit, durian, and mango among flora, and rhinoceros, zebra, and giraffe among fauna. On some points he is too gullible, as when he describes in all seriousness the vampire of Champa, and the were-tiger of Malacca. On other points, again, commentators have found it difficult to distinguish between fact and fable; for instance, when Ma Huan relates the custom of obtaining human gall in Champa, or the history of the 'old fisherman' at Semudera. In general, Ma Huan seems to have formed his judgments fairly and without prejudice.

B. Extant versions of the 'Ying-yai sheng-lan'

The *editio princeps* of 1451 having long disappeared, we now rely for our knowledge of Ma Huan's book on three printed Ming copies, herein called C, S and K. The irresponsible vagaries of Chinese copyists are almost beyond belief; and we may not unfairly apply to them Moule's stricture on those who copied the manuscripts of Marco Polo, 'each copyer omitted, abridged, paraphrased and made mistakes as he saw fit'.

Version C

The version primarily used here appeared in a collection called *Chi-lu hui-pien*, 'A Collection of Records', published by Shen Chieh-fu in about 1617, the *Ying-yai sheng-lan* comprising the forty-seven folios of chapter 62. Examples of the *Chi-lu hui-pien* may be found in the Cambridge University Library, in the Institut des Hautes Études chinoises at Paris, and in the Library of Congress at Washington (used for this study). Manuscript copies of this version of the *Ying-yai sheng-lan* exist in the British Museum (Or. 6191) and in the Sinological Institute at Leyden. In addition to the *Ying-yai sheng-lan*, the *Chi-lu hui-pien* contains Ma Huan's Foreword of 1416, the Poem, and Ku P'o's Afterword of 1451. The *Chi-lu hui-pien* version in all probability reproduces the 1451 printed text or a copy made from it; it is a

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bad version, containing numerous errors and omissions, some of which had already crept into the 1451 text.

The so-called *rifacimento* of the *Ying-yai sheng-lan* composed by Chang Sheng, and comprising the twenty-two folios in chapter 63 of the *Chi-lu hui-pien*, was included in the posthumous edition of Chang Sheng's works published by his son in 1522, and was later incorporated in various other collections. Chang Sheng disliked the obscurities which he found in the *Ying-yai sheng-lan*, and the simple colloquial style of composition. He therefore re-wrote it in proper literary style, highly condensing the whole work so that not a single line in the two texts is identical, but spoiling the value of the work almost altogether by numerous omissions and errors.

This *rifacimento*, called *Ying-yai sheng-lan* or *Ying-yai sheng-lan chi*, was often mistaken for Ma Huan's original composition. It was the only version known to the editors of the great encyclopaedia often cited as *Ku-chin t'u-shu chi-ch'eng*, 'Illustrated Collection of Books ancient and modern' (1726), in which large sections of the *rifacimento* are reproduced; and the only version known to the compilers of the Ch'ien-lung emperor's great library called *Ssu-k'u ch'üan-shu*, 'Complete Library in Four Sections' (1782). Chang Sheng possessed a text which contained better readings than the *Chi-lu hui-pien* version, and his *rifacimento* is sometimes useful for correcting copyists' errors and elucidating obscure expressions.

It was this *rifacimento* which Rockhill translated in the mistaken belief that it constituted Ma Huan's original composition.¹

Version S

The second version used here appeared in a collection called *Sheng-ch'ao i-shih*, 'Historical Events of the Late Dynasty', published by Wu Mi-kuang in 1824, the *Ying-yai sheng-lan* constituting the forty-eight folios of chapter 1. The Institut des Hautes Études chinoises at Paris holds an example of this edition from which photographs were taken for use in this study. The collection was re-cast and completed in 1883 by Sung Tse-yüan; and an example may be found in the Oxford University Faculty Library (Chinese), the *Ying-yai sheng-lan* appearing in no. 2720, vol. 3. It contains no Foreword, Poem, or Afterword.

This version of the *Ying-yai sheng-lan* was based on a manuscript, about which we know nothing. The text is even worse than C, yet it contains a certain number of better readings.

¹ On the *rifacimento* see Rockhill, Part II, pp. 69-73; Duyvendak, *Ma Huan*, pp. 4-10, 23; Pelliot, 'Voyages', pp. 241-51, 417.

Version K

The third version used here appears in a collection called *Kuo-ch'ao tien-ku*, 'The Literary Principles of a Dynastic Period', edited by Chu Tang-mien at some unknown date between 1451 and 1644, the *Ying-yai sheng-lan* occupying forty-two folios in chapter 106; see *Kuo-li Pei-p'ing t'u-shu-kuan shan-pen shu-mu*, 'Catalogue of rare editions in the National Library of Peking', 1933. The National Library at Peking holds what is perhaps the only extant example of this edition, from which photographs were taken for use in preparing this study. A microfilm of this text of the *Ying-yai sheng-lan* exists in the Library of the School of Oriental and African Studies, London.

This edition contains no Foreword, Poem, or Afterword, and we know nothing of the document on which this version of the *Ying-yai sheng-lan* was based. The text is still worse than S, but it contains a few better readings than either C or S. The existence of this printed edition was not known to previous writers on Ma Huan.¹

A word should be said about the copies of the *Kuo-ch'ao tien-ku* version. We first hear of these copies from Hsiang Ta in 1929; in 1935 Feng Ch'eng-chün used a copy when constructing his text of the *Ying-yai sheng-lan*; Pelliot mentioned this copy in 1936 and knew of the existence of other defective copies; and in 1939 Duyvendak referred to 'a Ms. copy of the *Kuo-ch'ao tien-ku* edition in the library of Columbia University, New York', of which the editor has seen photographs.²

It can be presumed that all these defective copies of the *Ying-yai sheng-lan* must have been made from the printed version in the *Kuo-ch'ao tien-ku*. But whether the copy used by Hsiang Ta and Feng Ch'eng-chün was identical with that used by Duyvendak and the present editor, or whether all were different, is not known.

Curiously enough, not only does the Columbia University copy differ from the printed version in many places but it contains documents which are not in the printed version, that is to say, Ma Huan's Foreword of 1416, Ma Ching's Foreword of 1444, and the Poem; it adds a number of characters, sometimes as many as nineteen, which are not in the printed version; and it occasionally incorporates a correct reading where the printed version is incorrect: thus, for the last syllable of the Malay word *durian* it correctly writes *yen*, whereas the printed version incorrectly writes *ma*. Hence it is obvious that the copyist availed himself of documents other than the *Kuo-ch'ao tien-ku* version itself.

¹ On these versions see Pelliot, 'Voyages', pp. 245-6, 264, 412, 428, 432; Pelliot, 'Encore', pp. 210-13.

² On these copies see Pelliot, 'Encore', pp. 210-13; Feng Ch'eng-chün, *Ying-yai sheng-lan chiao-chu*, Foreword, p. 3; Duyvendak, 'Dates', p. 392, n. 2.

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Errors and omissions are very numerous in each version and a detailed comparison of the three texts discloses that there are over four thousand divergencies. Omissions amount to as much as 32 consecutive words in C, 87 in S, and 222 in K. In addition, the texts sometimes contradict each other, and this renders the composition of a definitive version a most hazardous enterprise; for example, S states that Chinese copper coins were not used in Thailand, whereas K states that they were always used. In very many cases it is impossible to ascertain Ma Huan's meaning by relying on C alone; for instance, in attempting to recover the local name of the 'fly-o'er-the-grass', the 'king among the beasts' in Hormuz, Duyvendak suggested that the reading *ya-huo-shih* might represent the Persian *khargush*, the hare. The number of cases was considerably reduced by the use of S; so, by collating the reading *hsi ya kuo* Pelliot was able to reconstruct the Persian name *siyah-gosh*, 'black ear', the lynx; and the number of cases was further diminished by the discovery of K; thus, the unintelligible place-name Yang-t'a in Arabia was elucidated as Chih-t'a, Jidda.¹

C alone gives the correct reading *mu pieh tzu* for *momordica cochinchinensis*, *t'ang-chia* for *tanka*, and *An-tu-li* for 'Androth' (island); S alone gives the correct reading *fa-la-shih* for *farsala*, *ma-chiao yü* for the bonito, and *pa-tan* for *badam* (almond); K alone gives the correct reading *An-tu-man* for 'Andaman' (island), *chia-shih* for 'cash', and *Chih-t'a* for 'Jidda'.

Here it will be convenient to consider Feng Ch'eng-chün's composite text, which is here translated. Feng had at his disposal the printed edition of the *Chi-lu hui-pien* text, the printed edition of the *Sheng-ch'ao i-shih* text, and a manuscript copy of the *Kuo-ch'ao tien-ku* text.² In commenting on Feng's work, the editor presumes that the readings are identical in the texts used by Feng and himself; but this is not certain, since there may have been a partial reprint of the *Chi-lu hui-pien*,³ and Feng may have used a different edition, containing Ma Huan's Foreword, of the *Sheng-ch'ao i-shih*, and a different copy of the *Kuo-chiao tien-ku* text.

Feng took the *Chi-lu hui-pien* text of the *Ying-yai sheng-lan* as his basis, and he constructed his text by building on this basis with materials derived from certain other works. As an example, for Ma Huan's Foreword of 1416, the *Chi-lu hui-pien* version is checked against the version in his *Sheng-ch'ao*

¹ Compare Duyvendak, *Ma Huan*, p. 69, n. 7; Pelliot, 'Encore', p. 222. Duyvendak knew only of C; Pelliot examined C and S, but knew of K only from the book of Feng Ch'eng-chün, who used a copy of the printed version. Duyvendak, who struggled bravely with one bad printed text, made numerous errors, some of which were corrected by Pelliot; and of Pelliot's two dozen errors some were corrected by himself and some others by Duyvendak.

² Feng Ch'eng-chün, *Ying-yai sheng-lan chiao-chu*, Foreword, pp. 3-4.

³ Pelliot, 'Encore', p. 218.

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i-shih and the anonymous manuscript *San pao cheng-i chi*, 'Collected [Accounts] of San pao's Conquests of the Barbarians'; and, as the latter work is known only from a notice in another book, this involves the acceptance of secondary evidence.¹

c. The 'Ying-yai sheng-lan'

1. Contents

Before discussing the *Ying-yai sheng-lan* itself, the editor comments briefly on the other documents included in Feng Ch'eng-chün's edition.

Ma Huan's Foreword of 1416. This gives a number of interesting facts about the author, and we may note that he accompanied Cheng Ho's expedition of 1413-15 as a translator, that he made personal observations in the countries which he visited, that he contemporaneously made a record of those observations, and that his book contains an accurate statement of them.

Ma Ching's Foreword of 1444. From this pedantic effusion we learn that Ma Huan's courtesy-name or style was Tsung-tao, and that he accompanied three of Cheng Ho's expeditions. Ma Ching stresses Ma Huan's financial integrity and the comprehensiveness of his account. He considered Ma Huan to be a very able, indeed a remarkable man, and prophesied that his name would live for ever in historical books.

The Poem. This Kiplingesque ode in seven-syllable stanzas was written by Ma Huan in 1416, Pelliot thought,² after his return from his first voyage in 1415. It contains jottings about the voyage to Hormuz, interspersed with laudatory references to the emperor and to Cheng Ho. It is not marked by any profundity of sentiment, though it contains one picturesque image, in which islands are described as 'green floating shells'. It discloses no important facts, though Feng drew the conclusion that the Western Ocean extended as far east as Java, and it contains an interesting reference to journeys made by merchants from Egypt and Ferghana to Hormuz. Considered as verse, it is of moderate quality, being neither doggerel on the one hand nor beautiful poetry on the other.

Ku P'o's Afterword of 1451. This was written at the request of one Lu T'ing-yung, a friend of Kuo Ch'ung-li, Ma Huan's colleague and collaborator. From this Afterword we learn that Ma Huan and Kuo Ch'ung-li were

¹ Feng Ch'eng-chün, *Ying-yai sheng-lan chiao chu*, Ma Huan's Foreword, pp. 1-2; Pelliot, 'Voyages', p. 257; Pelliot, 'Encore', p. 211.

² Pelliot, 'Voyages', pp. 261-2, 303, n. 2.

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Muslims, that they travelled within the territories of the twenty countries which they visited, and that they went to Mecca. We also learn that both men gave frequent talks about their experiences abroad, and that Kuo Ch'ung-li was anxious to have Ma Huan's book printed in order that these matters might come to the knowledge of a wider public.

The Ying-yai sheng-lan. At this time accounts of foreign travel were not uncommon, and the Chinese court welcomed them. As Fei Hsin's book was illustrated,¹ it may well be that the first printed edition of the *Ying-yai sheng-lan* also contained illustrations. These would probably take the form of rough woodcuts such as those appearing in the *San-ts'ai t'u-hui* encyclopaedia of 1609.² From the Forewords written by Ma Huan and Ma Ching and from the Afterword of Ku P'o, we ascertain the topics with which an account of foreign travel was expected to deal. These included geography and topography; climate; political changes; the appearance, costume, customs, morals, and diet of the various peoples; laws and regulations; crimes and punishments; and economic products. And there are indications that a chief desideratum was an account of unusual things. Ma Huan purported to give the reader a brief summary of all the important facts.

His accounts vary greatly in length and content; thus, the description of Lide [Meureudu], of Aru [Deli], and of Quilon takes less than a page; while the longer accounts of Calicut and Java occupy about half a dozen normal pages of English print. Ma Huan's descriptions are comparatively short to read, and in order to ascertain the matters which he thought fit to note, it will suffice to analyse the least detailed and the most detailed account.

From his description of Li-tai [Lide, Meureudu] on the north coast of Sumatra, we may draw conclusions as to what he considered the barest essentials.

He remarks on the small size of the country, and explains its situation in relation to the sea, the mountains, and the adjoining countries. He states that they have a king, who is subject to Semudera. He gives the number of the population, and says that their speech and customs resemble those of Semudera. He comments that the land has no products, but that the mountains contain wild rhinoceros. Finally he adds the usual formula to the effect that the country sent tribute to China.

In contrast with that meagre sketch, Ma Huan's account of Ku-li [Calicut] contains a great deal of interesting information. He emphasizes its importance as the principal emporium of the Western Ocean, and shows its geographical position as regards Ko-chih [Cochin] on the south, Hen-nu-erh [Honavar]

¹ Duyvendak, 'Dates', p. 394.

² For an example, see *T'oung Pao*, vol. x, no. 3 (1899), facing p. 27.

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on the north, and K'an-pa-i [Coimbatore] far to the east. He calls the king a Nan-k'un man [or Nan-p'i, Brahman or Kshatriya], a staunch Buddhist who venerated the elephant and the ox; he gives an elaborate description of the king's religious devotions in what he calls a 'temple of Buddha'; and he appends a version of the story concerning Moses and the golden calf. He also notices the rule of succession through the son of the king's sister. The great chiefs, he notes, were Muslims. The administration, he observes, lay in the hands of two great chiefs, both of whom were Muslims. After mentioning the absence of flogging, he sets out the permissible punishments, in order of severity, as severance of hand or foot, fine, death, confiscation of the offender's property and extermination of his family; he also describes the process of ordeal by boiling oil in cases where the accused person contests the allegation of guilt. On the subject of religion he further remarks that the majority of the population were Muslims, and explains the usual routine on the day of public worship.

He admires the smart, fine, and distinguished appearance of the people, and praises their honesty and trustworthiness. He divides the population into five classes as Muslims, Nan-k'un, Che-ti, [Chetty], Ko-ling [Kling], and Mu-kua [Mukava]. He comments on their predilection for butter, and stresses that, like the king, they refrained from eating beef, while the Muslims abjured pork; and he recites the pact between Muslims and non-Muslims to respect each others' tenets. He extols the excellence of their music, and points out that the 'So-li' [Chola] people and the Muslims followed their own customs in marriages, funerals, and other matters. He treats of the currency (the gold *fanam* and the silver *tar*), and of the system of weights (*farsala* and *bahar*) and measures. He refers to their use of steelyard and scales, and expresses astonishment at the unerring accuracy of their calculations by means of digits alone. He specifies the flora and fauna, and tells of the pepper and coconut cultivation, and the manufacture of cotton and silk cloths. He gives an account of the pepper-trade and the trade of the Chetties in gems, and the many foreign ships bringing imports which were sold under official supervision to ensure payment of duty. Lastly, on the subject of relations with the Chinese, he recounts the visit of Cheng Ho in 1407 to proclaim the imperial will and bestow honours on the king and his chiefs, the erection of a commemorative plaque, and the manufacture of a jewelled girdle especially made on the king's order for presentation as tribute to the emperor of China.

As might be expected, the matters on which Ma Huan reports differ from one country to another; so that in addition to the topics to which he refers in his longest account, that of Calicut, he makes mention of such things as the calendar, wine-drinking ceremonies, vampires, local legends, jousting,

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suttee, singing-parties, the *wayang*, gaming, temporary marriages, were-tigers, *jogis*, jugglers, and tricks, besides noting such unusual animals, birds, and products as the rhinoceros, tapir, crocodile, camel, zebra, giraffe, lion, lynx, buceros, cassowary, ostrich, jack-fruit, *kemenyan* [benzoin], damar, sago, nipa-wine, durian, mango, oysters, gem-stones, ambergris, cowries, frankincense, almonds, and dates.

It goes without saying that we should have liked further information on many points, for instance, the Thai calendar, Javanese coinage, methods of warfare, or the system of weights and measures used in Aden, Bengal, Hormuz, and Mecca.

II. *The importance of the work*

The Chinese records constitute valuable authorities for conditions in southern Asia before the arrival of the Portuguese, whose first relation, the anonymous *Roteiro de Vasco da Gama*, refers to the year 1498. If we consider the period of a century and a half before that date, we find that there are six travellers who wrote considerable accounts: at about the beginning of the period, Ibn Battuta (1326-49) and Wang Ta-yüan (c. 1330-50); and at about the middle of the period Fei Hsin (1409-33), Ma Huan and Kung Chen (1413-33), and Nicolò de Conti (c. 1420-44).¹

It will be seen that four of these six writers were Chinese travellers; and on the whole Ma Huan is the best of our Chinese informants.² Detailed comparison is difficult; but we may note that of the twenty countries described by Ma Huan, Ibn Battuta describes only ten and Wang Ta-yüan only thirteen; further, while Fei Hsin gives a description of eighteen countries, his accounts are much shorter, and those of Conti must be considered very poor except in regard to Vijayanagar, a country which Ma Huan does not include.

Ma Huan's accounts are superior to those of Ibn Battuta except as regards Ceylon, Quilon, and the Maldivé islands, superior to Wang Ta-yüan except as regards Ceylon³ and Quilon, superior to Fei Hsin except as regards Champa⁴ and Quilon, and superior to Conti except as regards Quilon.

One naturally enquires how Ma Huan compares with the *Ming shih* in

¹ Various relevant matters were mentioned by a number of less important writers, for instance, Abdur Razzak (1442-4), Nikitin (c. 1470), and Hieronimo de Santo Stefano (c. 1496).

² The book of Kung Chen has recently come to light, and it transpires that Kung Chen and Ma Huan described the same twenty countries, and that their books are of much the same length and scope; further examination may disclose that Kung Chen is as informative as Ma Huan.

³ Wang Ta-yüan includes accounts of Dondra head, Colombo, and 'Ti san chiang' (the Gulf of Mannar?).

⁴ Fei Hsin includes accounts of Cape Varella and Panduranga.

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completeness; again, only a rough generalization can be made, since the *Ming shih* is concerned more with politics and Ma Huan more with manners. Generally speaking, in their respective descriptions of these twenty countries during the period from 1403 to 1453 the *Ying-yai sheng-lan* is approximately twice as long as the *Ming shih*; in the accounts of Calicut and Hormuz it is nearly three times as long; and in one instance only, the description of Quilon, does the *Ming shih* contain a longer account. Ma Huan is important because nearly every item of information which he gives deserves to find a place in any detailed account of the countries which he describes.

The following sketch specifies what seem to be the more important matters mentioned by Ma Huan; and in this connection we may note that for the contemporary Chinese reader the more important information would normally be that which was not given by Wang Ta-yüan (1350), since it is to be presumed that at the time when Ma Huan's book was first published, probably in 1451, the books of Kung Chen and Feu Hsin had not yet appeared in print. The sketch sets out what Ma Huan says, and not what one might think he ought to have said; but a few of the Chinese readings have been corrected.

Champa. The country was reached after sailing south-west for ten days from Fu chou to the main port of Qui Nhon, the strong point of Sri Banoy and the walled capital of Champapura being in this locality. The king belonged to the Chola race, and professed the Buddhist religion. Products included superior ebony wood, valuable lign-aloes, the unique 'Kuan yin' bamboo, and the rhinoceros. Fishing constituted the main occupation. Marriages were contracted by consummation. Writing was done with white chalk on goat-skins or tree-bark folded into book form. Punishments included branding and impalement. Gold and silver were used as currency. The Chinese traded porcelain, silks, and beads. Tribute was constantly presented to China.

Java. Ships first reached Tuban, next Gresik, and then Surabaja, the terminus for large ships, whence the journey was made in small ships to Cangu, and thence overland to Majapahit, the capital. Males universally wore the poniard and flew to it on the least provocation. Judicial executions were frequent. The population consisted of Muslim merchants from the west, Chinese, and the rude local people. The king held annual jousting tournaments. The people contracted marriages by consummation. The dead were devoured by dogs, cremated, or committed to the waters. Upper-class families practised *suttee*. Many foreigners amassed wealth. Chinese copper coins were in general use. Writing was done in Indian script with a stylus on palm-leaves, and composition followed grammatical rules. In the system of weights one

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'ounce' equalled one and four-tenths Chinese 'ounces'; in the system of measures one *kula* (pint) equalled one and eight-tenths Chinese 'pints'. The Chinese traded porcelain, musk, silks, and beads. The king constantly sent tribute to China.

Palembang. The country, locally called 'P'o-lin-pang' was identical with the former San Fo-ch'i [Sri Vijaya], and subject to the suzerainty of Java. It had the sea on the north, mountains on the south, Java to the east, and Malacca to the west. Ships came from all places. The people enjoyed great wealth, and the soil was very fertile. Men trained to fight on water. Dry land being scarce, the common people lived on rafts. Customs coincided with those of Java. The outrages of the pirate chief Ch'en Tsu-i having been reported, Cheng Ho [on his first expedition] captured and deported him, and subsequently Shih Chin-ch'ing and his descendants were appointed as governors by the emperor. Products included benzoin, the rhinoceros hornbill, the cassowary, and the tapir. The people loved gambling. Chinese copper coins were in use. The ruler constantly sent tribute to China.

Thailand. From Champa ships travelled towards the south-west and after seven days reached this mountain-girt swamp-land with barren soil. The king was of the Chola race, and a devout Buddhist. Monks and nuns abounded. The women excelled in intelligence, and managed affairs. A Buddhist priest escorted a prospective bride-groom to the bride's family-house, and the marriage was afterwards contracted by consummation. The bodies of the wealthy were buried, and the bodies of the poor devoured by birds. Some sixty miles north of the capital [Ayutthaya] lay the busy mart of Shang shui [Lopburi], where men from the Chinese fleets went to trade. Products included an abundance of sapan-wood. The language resembled a patois of Cantonese. The people practised fighting on water, and the king committed frequent acts of aggression. Cowries, or gold, silver, or copper coins, but not Chinese copper coins, might be used as currency. The king regularly sent tribute to China.

Malacca. From Champa junks steered due south for eight days to Lung ya strait [near Singapore], and then due west for two days. Formerly the territory of 'Five Islands' was controlled by a chief who paid tribute to Thailand under threat of invasion. Cheng Ho [on his third expedition] raised the status of the territory to that of a 'country', and promoted the chief to be a 'king'. The king visited the emperor to return thanks and present tribute.

The sea-coast faced south-east, and mountains lay to the north-west. The

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soil was infertile, and agriculture little practised. A bridge with twenty trading-booths spanned the river. The Muslim religion prevailed. Fishing constituted the main occupation. Products included dammar, tin, and sago. Tin was used as a medium of exchange. Language, writing, and marriage-rites approximated to those of Java. Animals included crocodiles and tigers. The Chinese here constructed a depot for their fleets. The king attended the emperor's court and presented tribute.

Aru [Deli]. Ships reached here after a voyage of four days from Malacca. On the north lay the great sea, on the south great mountains, on the east flat land, and on the west the country of Semudera. The people practised agriculture and fishing. Customs were identical with those of Java and Malacca. Islam prevailed. Products included lign-aloes and benzoin.

Semudera [Lho Seumawe]. This formed the principal emporium for the Western Ocean. From Malacca ships steered towards the south-west, and they arrived here after five days' sailing. The great sea formed the northern boundary, on the south and east rose great mountains, and the great sea lay away to the west. A pretender named Sekandar, rebelling against the reigning king, was captured by Cheng Ho [on his fourth expedition] and taken to China; and the king, in gratitude, constantly sent tribute to the Chinese court. People cultivated dry-land rice only. Pepper from local gardens sold at the rate of one hundred catties for eighty gold coins, equivalent to one Chinese 'ounce' of silver. Cattle-breeding was extensively practised. Language, writing, and marriage- and funeral-customs coincided with those of Malacca. Numerous foreign ships brought an abundance of imports. Currency comprised a gold *dinar* and tin 'cash'. The catty was divided into sixteen 'ounces'. Adjacent on the west lived the people of Nagur [Peudada], the 'tattooed faces', whose language and customs were identical with those of Semudera.

Lide [Meureudu]. On the north was the great sea and on the south great mountains; Nagur adjoined on the east and Lambri [Atjeh] on the west. The king recognized the suzerainty of Semudera, and the language and customs of that country prevailed here. Wild rhinoceros abounded in the mountains, and the king sent men to capture them. Tribute was remitted to China.

Lambri [Atjeh]. Ships reached here after sailing due west from Semudera for three days. The great sea was on the north and west, mountains on the south, and Lide on the east. The king held the Muslim faith. Traders used copper coins. Products included laka-wood and rhinoceros. Half a day's journey to the north-west lay the island called Mao shan [Poulo Weh], serving as a

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land-mark for ships sailing east across the Western Ocean; coral was found in its waters; and Lambri ruled it. The king of Lambri constantly sent tribute to China.

Ceylon. Three days' sailing from Poulo Weh lay the Nicobar and Andaman islands, inhabited by naked troglodytes, whose land produced no rice. From here ships travelled due west for seven days till they sighted Parrot's Beak mountain [Nemunakuli], after three days rounded Buddha Hall mountain [Dondra head], and moored at Pieh-lo-li [Barberyn, Beruwala]. The king was a man of the Chola race, and a devout Buddhist, who venerated the elephant and the cow. The people smeared their bodies with burnt cow-dung, and the law made cow-killing a penal offence. By the king's residence a high mountain-peak contained a giant foot-print said to be that of man's ancestor Adam, otherwise P'an Ku. This mountain produced a variety of gem-stones. The king obtained pearls from a pond, regularly re-stocked with oysters. The country was extensive, the people numerous, and supplies abundant, especially coconuts. They practised cremation. The king minted a gold coin. The Chinese traded musk, silks, porcelain, copper coins, and camphor for gems and pearls. The king constantly sent tribute to China.

Quilon. The country was reached after sailing north-west from Beruwala for six days. It formed a narrow strip on the coast, with mountains on the east. King and people were of the Chola race and devout Buddhists. Customs coincided with those of Ceylon. Products included a little sapan-wood and pepper, and much butter. The king minted a gold coin; and he sent tribute to China.

Cochin. This country, one day's sailing north-west from Quilon, lay beside the sea, had large mountains on the east, and was linked by road with neighbouring countries. King and people belonged to the Chola race. The population consisted of five kinds of persons; first, the honourable Nan-k'un [properly Nan-p'i, Brahman or Kshatriya]; secondly, Muslims; thirdly, the moneyed Che-ti [Chetty]; fourthly, the Ko-ling [Kling] brokers; and fifthly, the untouchable Mu-kua [Mukava]. The king devoutly worshipped Buddha. A class of religious devotees bore the appellation Cho-chi [Jogi]. Pepper, the only product, was extensively cultivated, and was bought and stored by local merchants until foreigners came to buy it, the price being ninety gold coins, worth five Chinese 'ounces' of silver, for one *po-ho* [*bahar*] of twenty-five *feng-la* [*farsala*], equivalent to four hundred Chinese catties. The Chetties dealt in gems, pearls, aromatics, and corals. The king minted a gold *fanam* and a silver *tar*, worth one-fifteenth of a *fanam*. In marriages and funerals the five kinds of persons followed their own customs. The king sent tribute to China.

Calicut. This constituted the great country of the Western Ocean, being three days' sailing north-west from Cochin. On the north lay Honavar, on the south Cochin, on the west the great sea, and on the east men travelled through the mountains to Coimbatore. Cheng Ho [on his second expedition] visited the king, and erected a commemorative plaque. The king was a Nan-k'un [properly Nan-p'i] man, and a devout Buddhist. The population included the same five kinds of persons as in Cochin.

The king and the people refrained from eating beef, while the great chiefs, being Muslims, refrained from eating pork. The king built a temple of Buddha, cast a brass image of Buddha and washed it daily. Watered ox-dung was smeared over the ground and walls of the temple, and over the person of the king and chiefs. Two Muslim chiefs administered the country. The majority of the people professed the Muslim religion, and once in seven days they worshipped in twenty or thirty temples. On the visits of the Chinese treasure-ships, Indian and Chinese officials fixed the exchange-values of the Chinese silks and other goods, and the values were reduced to writing and strictly adhered to when the local traders exchanged their gems and other valuables. The Indians, using no apparatus but the digits of hands and feet, made unerring calculations. The king minted a gold *fanam* and a silver *tar*. In weighing, the local catty equalled one and six-tenths Chinese catties; they called the local weight *fan-la-shih* [*farsala*]; in weighing aromatics two hundred catties made a *po-ho* [*bahar*]. In measuring, the local brass 'pint' measure, called *tang-chia-li*, equalled one and six-tenths Chinese 'pints'. The 'Western Ocean cloth' of the locality sold for eight or ten gold coins a roll, and silk kerchiefs for one hundred gold coins each. The people cultivated much pepper, and the ripe berries were stored and sold under official supervision, *ad valorem* duty being collected on the price of two hundred gold coins for a *bahar*. The Chetties bought gems and pearls, and manufactured such articles as coral beads. Foreign ships imported goods from all places, and the sale of imports was officially supervised and duty collected. Rich men established plantations of coconuts, which had ten different uses. Products included the *mu-pieh-tzu* tree [*Momordica cochinchinensis*]. Customs differed according as the people were Cholas or Muslims. The royal succession ran through the son of the king's sister. Punishments embraced mutilation, fine, death, or confiscation of the offender's property and extermination of his family. In contested criminal cases, the accused had to submit to the ordeal by boiling oil. The king especially commanded a jewelled girdle for presentation as tribute to China.

Maldivé and Laccadive islands. From Poulo Weh ships steered south-west, and could reach the islands in ten days. The local name was Tieh-kan

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[properly Tieh-wo, Diva], while the Chinese designated the islands as Liu [Diu]. The eight larger places bore the names Sha liu [Mulaku atoll], Jen-pu-chih liu [Fadiffolu atoll], Ch'i-ch'üan liu [properly Ch'i-lai liu, Tiladummati atoll], Ma-li-ch'i liu [Minicoy island], Chia-pan-nien liu [Kalpeni island], Chia-chia liu [Sacrifice rock ?], An-tu-li liu [Androth island], and Kuan jui liu [properly Kuan hsü liu, Male island]. The troglodytic inhabitants knew nothing of rice. King, chiefs, and people professed the Muslim religion. The people lived by fishing and cultivating coconuts. In their marriage- and funeral-rites they followed the tenets of their religion. Coconuts abounded and were exported to foreign countries. In ship-construction they fastened planks with cords and used no nails. Ambergris sold for its weight in silver. They exported cowries and dried bonito fish for sale abroad. They manufactured superior silk kerchiefs. The king minted a small silver coin. One or two Chinese treasure-ships visited the islands.

Dhufar. Ships leaving Calicut steered north-west and arrived after ten days. The country lay between the sea on the south-east and mountains on the north-west. King and people held the Muslim faith. Mounted soldiers and a military band accompanied the king when he travelled. On the day of worship the men stopped trading before noon, bathed and perfumed themselves, and went to worship in the mosques. Marriage- and funeral-rites were prescribed by religion. The land produced frankincense, and when the Chinese treasure-ships visited the place, the people traded frankincense and other articles for silks and porcelain. The Chinese found ostriches and camels there. The king minted a gold *tanka* and a copper coin. The king sent frankincense, ostriches, and other such things as tribute to China.

Aden. From Calicut the junks steered due west and reached Aden after one month. In this rich and populous sea-side country king and people were Muslims, and spoke Arabic. The country had a powerful and menacing army. On Cheng Ho's [sixth] expedition of 1421 the fleet was divided at Semudera, and the eunuch Chou reached Aden with several treasure-ships; the king extended an enthusiastic and elaborate welcome to the Chinese mission; and the Chinese purchased many rare articles, animals, and birds. The jewellers manufactured *objets d'art* of unequalled beauty. Aden had markets, public baths, and shops selling goods of every kind. The king minted a gold *fuluri* and a copper *fulus*. Astrologers made accurate prognostications of the seasons, eclipses, tides, and weather. Among unusual animals seen there were the big-tailed sheep, zebra, ostrich, giraffe, and lion. The king sent valuable gifts as tribute to China.

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Bengal. Ships travelled from Semudera by way of Poulo Weh and the Nicobar islands, and made Chittagong after twenty days. Travellers used a small ship for the journey to Sonargaon, whence the walled capital [Gaur] could be reached after thirty-five stages of travelling. The country was extensive, productive, and well-populated. Numerous wealthy ship-owners traded overseas, and many labourers sought employment abroad. The people were all Muslims, speaking Bengali and occasionally Persian. The king minted a silver *tanka*, and cowries might also be used as currency. Popular customs conformed with religion. They had public baths and all kinds of shops. They manufactured half a dozen kinds of fine cloths, besides silks and many miscellaneous articles, including fine steel. Punishments included flogging and banishment. They had a service of administrative and military officials, also doctors, astrologers, and experts of all kinds. The king carried on foreign trade, and he presented valuable tribute to China.

Hormuz. Ships leaving Calicut steered north-west and arrived at Hormuz after twenty-five days. Foreign trade enriched the population. King and people zealously performed their religious duties as Muslims. Marriage- and funeral-rites conformed with Islam. The king minted a silver *dinar*. They wrote in 'Muslim' [Arabic] characters. Civil and military officials, doctors, and craftsmen excelled. Minerals were quarried under official supervision. Imported cereals were cheap. Goods, including imported luxuries, abounded. Unusual animals included the lynx.

Mecca. From Calicut ships steered south-west, and after three months made Jidda, whence Mecca could be reached in a day. Here was founded the Muslim religion, which all the inhabitants professed and devoutly followed. They spoke the Arabic tongue. They formed a law-abiding and happy community. Marriage- and funeral-rites were ordained by their religion. Within the great mosque stood the perfumed Heavenly Hall, the 'K'ai-a-pai' [Ka'ba], whither foreign Muslims came annually to worship, each pilgrim removing a portion of the silk covering as a memento. Near the Ka'ba lay the tomb of Isma'il, a holy man. From the four towers of the mosque the call to prayer was made, and the service chanted. The king minted a very pure gold *tanka*. In Medina lay the tomb of the holy Muhammad, and the well of Zamzam. On Cheng Ho's [seventh] expedition ordered in 1430 the grand eunuch Hung, commanding a division of the fleet at Calicut, sent a mission of seven persons to Mecca, where they purchased rare articles. The king of Mecca sent tribute to the Chinese court.

Ma Huan gives descriptions of seven countries which had not been described by previous Chinese writers, namely, Aden, Aru, Cochin, Dhufar,

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Hormuz, Lide, and Malacca. (In the western world there were descriptions of Aden, Dhufar, and Hormuz in the relation of Ibn Battuta, recorded in 1355, and a few notes on Cochin in the account of Conti, recorded about 1444.)

Some of the matters about which Ma Huan informs us are very important, for instance, the establishment of the Chinese depot at Malacca; while on certain topics mentioned by other writers, he provides us with the best accounts which we have, for example, regarding the curious operation performed on young males in Thailand.

Ma Huan also gives a number of place-names which had not been mentioned by previous Chinese writers, that is to say:

An-tu-li [Androth island]	Kuan jui [properly Kuan hsü, Male island]
Chang-ku [Canggu]	Li-tai [Lide]
Che-ti-chiang [Chittagong]	Ma-li-ch'i [Minicoy island]
Ch'i-ch'üan [properly Ch'i-lai, Kelai island]	Man-che-po-i [Majapahit]
Chia-chia [Sacrifice rock ?]	Man-la-chia [Malacca]
Chia-pan-nien [Kalpeni atoll]	Na-ku-erh [Nagur]
Chih-r'a [Jidda]	Pieh-lo-li [Barberyn]
Ch'u luan wu [Nicobars]	Sha liu [Mulaku atoll]
Hen-nu-erh [Honavar]	She Pi-nai [Sri Banoy]
Hsien Lo [Thailand]	So-na-erh-chiang [Sonargaon]
Hsin ts'un [Gresik]	Su-erh-pa-ya } [Surabaja]
Jen-pu-chih [Gubati, Fadiffolu atoll]	Su-lu-ma-i }
K'an-pa-i [Coimbatore]	Tieh-kan [properly Tieh-wa, Diva]
Ko-chih [Cochin]	Wu hsü [Water islands]
Ko-erh-hsi [Gresik]	Ya-la [Aru, Deli]
	Ying ko tsui shan [Namunakuli]

(Westerners knew of Chittagong (Sudkawan), Honavar (Hinawr), Jidda (Judda), Sonargaon (Sunurkawan) and Diva (Dhibat) from Ibn Battuta, Cochin (Cochin) from Conti, and Barberyn (Pervilis) from Marignolli.)

Ma Huan is to be commended for giving us, in addition to traditional Chinese transcriptions of such names as Surabaja and Lambri, the phonetic transcriptions of the indigenous forms which he himself heard. Moreover, Ma Huan introduces many foreign words and expressions which are not to be found in the books of earlier travellers, namely:

<i>a-ku la-ch'a</i> [<i>aku raja</i> , 'I am a prince']	<i>an-pa-erh</i> [<i>anbar</i> , ambergris]
<i>A-la-pi</i> [Arabic]	<i>Che-ti</i> [Chetty]
<i>a-pi san-san</i> [well of Zamzam]	<i>ch'i-lin</i> [<i>giri</i> , giraffe]
<i>an-pa</i> [<i>amba</i> , mango]	<i>chia-shih</i> [cash]

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<i>Chia-ti</i> [Kadi, judge]	<i>na-la</i> [larak, draw back]
<i>Cho-chi</i> [Jogi]	<i>na-li</i> [naili measure]
<i>fa-nan</i> [fanam, coin]	<i>Pa-erh-hsi</i> [Persian]
<i>fan-la-shih</i> } [farsala weight]	<i>pa-nan</i> [fanam coin]
<i>feng-la</i> }	<i>pa ssu-la-erh</i> [sipar-salar, army leader]
<i>fu-lu</i> [faro, zebra]	<i>pa-tan</i> [badam, almond]
<i>fu-lu-li</i> [fuluri coin]	<i>pu-la-t'ou</i> [beladau, dagger]
<i>fu-lu-ssu</i> [fulus coin]	<i>sa-ha-la</i> [sakallat, broadcloth]
<i>Hsi-li Ma-ha-la-cha</i> [Sri Maharaja, Noblest Sovereign]	<i>sa-pai-chih</i> [sah-boi, amber]
<i>hsi-ya kuo-shih</i> [siyah gosh, lynx]	<i>sha-na-pa-fu</i> [sanah-baf, cotton crepe]
<i>K'ai-a-pai</i> [Ka'ba, at Mecca]	<i>sha-t'a-erh</i> [chautar cloth]
<i>k'ao-li</i> [cowry]	<i>so-nai</i> [surnay, oboe]
<i>ku-la</i> [kulak measure]	<i>ta-erh</i> [tar coin]
<i>ku-pang</i> [kobang measure]	<i>t'ang-chia</i> }
<i>lang-ch'a</i> [langsap fruit]	<i>t'ang-ch'ieh</i> } [tanka coin]
<i>mang-chi-shih</i> [manggis, mangosteen]	<i>ti-na-erh</i> [dinar coin]
<i>mo-hei-mo-le</i> [mahmal velvet]	<i>tu-erh-wu</i> [properly <i>tu-erh-yen</i> , durian fruit]
<i>Mu-kua</i> [Mucoa class]	

(Westerners knew the expressions 'Arabic', 'Persian', and *sakallat* ('syklatoun' in Chaucer), also '*raja*' (*rai*), 'Zamzam', Chetty (Sati), 'Kadi' (Qadi), *fanam*, 'Ka'ba', *sanah-baf* (*shanbaf*), *surnay*, *tanka*, and *dinar* from Ibn Battuta, *amba* and *siyah gosh* (*siagois*) from Jordanus, 'Jogi' (Chughi) from Marco Polo, and 'durian' (*duriano*) from Conti; but they would not have known the other expressions (though some of them, such as *tar*, had been used by other Asian writers); nor would they have known certain other words mentioned by earlier Chinese writers, for instance 'Ta-pan' [Tuban, in Java], mentioned by Chao Ju-kua (1226), *po-ho* [*bahar*] referred to by Wang Ta-yüan (1350), or *mi-lan* [sapphire] and other gem-stones enumerated by T'ao Tsung-i (1366). On the other hand, at the time when Ma Huan's book was about to be published in 1451, westerners were in some respects better informed than the Chinese; for example, they had Ibn Battuta's account of Hormuz, Dhufar, and Aden, and Conti's description of Vijayanagar.)

The *Ying-yai sheng-lan* contains a plethora of interesting facts for the historian, geographer, anthropologist, economist, numismatist, and folklorist; though it must be granted that Ma Huan makes certain statements which are incorrect, and raises certain problems which cannot yet be solved. Moreover, it seems probable that when his book has been further examined,

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it will be possible to arrive at important conclusions based on data which it provides; thus, we do not know the date when Calicut conquered Quilon, though it was before the arrival of the Portuguese; but since Ma Huan tells us that the king of Quilon was minting his own coins in 1433, and since the issue of coinage was a sign of sovereignty in mediaeval India, we can conclude that the conquest took place after 1433; or again, we have been able to work out that at Cochin the ratio of the value of gold to silver was as 5.61 to 1, and the silver *tar* was 92.5 per cent pure.

Many modern writers quote Ma Huan as an authority, for instance, Phillips, Groeneveldt, Schlegel, Rockhill, Ferrand, Duyvendak, Pelliot, Coedès, Majumdar, Sastri, Wheatley, Needham, and Winstedt, as well as such Chinese writers as Feng Ch'eng-chün, Hsü Yü-hu, Hsiang Ta, and Pao Tsen-peng. Pelliot considered that Ma Huan's notes display remarkable richness.

The influence of the *Ying-yai sheng-lan* may be discerned in several Chinese books of early times. First and second are those of Ma Huan's contemporaries Kung Chen and Fei Hsin, and these books will be considered in section D of this chapter. Third comes Huang Sheng-tseng's *Hsi-yang ch'ao-kung tien-lu*, 'Records of the Tributary Countries in the Western Ocean' (1520); in this valuable compilation Ma Huan is frequently mentioned by name, and much is borrowed from him; thus, his influence is clearly traceable in the chapters on Hormuz and Mecca, and may also be seen in the accounts of Gresik and Tuban in Java, and of Sri Vijaya in Sumatra, while Huang's reading *ta-ma-erh* for 'dammar' shows that he used Ma Huan's original text and not Chang Sheng's *rifacimento* which has *tan-mo*.¹ The fourth book will be Cheng Hsiao's *Wu-hsüeh pien*, 'A Compendium of our Learning' (c. 1552), whose reading *Sa-kan-li* instead of *Su-kan-la* for 'Sekandar', *Nan-ni-li* instead of *Nan-wu-li* for 'Lamuri' in Sumatra, and *shih-chih yü* instead of *shih-t'ou man*, 'the corpse-head barbarian' of Champa, prove that Cheng utilized Chang Sheng's *rifacimento* and not Ma Huan's original text.²

The fifth book is the *Ming shih*; and in this case the authors relied on the original text of Ma Huan, as is shown by the similarity of phrasing in the accounts of the liaisons between Thai women and Chinese visitors, of the mission to Aden during the course of Cheng Ho's sixth expedition, and of the designation of Mecca as a happy country, and finally by the erroneous reading *hua mao lu*, 'striped cats, deer', instead of *hua fu-lu*, 'the patterned *fu-lu*', in the description of the zebra.³ Duyvendak thought that the Mao

¹ Duyvendak, *Ma Huan*, p. 16; Pelliot, 'Voyages', pp. 360, 361, 371, 373, 390.

² Pelliot, 'Voyages', pp. 290, n. 3, 296, n. 1, and 356.

³ Duyvendak, *Ma Huan*, pp. 39, n. 1, 59, n. 4, 60, n. 4, 70, n. 7; Pelliot, 'Voyages', p. 420.

Ma Huan and his book

K'un Map seemed to have connections with the *Ying-yai sheng-lan*,¹ but he quotes no particular similarities, and no other writers have found any; indeed, some of the compass-bearings are different, and at least eight of the place-names are written with different characters, namely, Hormuz, Lambri, and six places in the Maldiva and Laccadive islands.

D. Other contemporary sources

Five persons in different ways became the 'authors' of accounts describing countries in southern Asia during the first third of the fifteenth century; these persons were the Italian Nicolò de Conti, and the four Chinese Ma Huan, Kuo Ch'ung-li, Kung Chen, and Fei Hsin.

Conti will be considered later. Of Kuo Ch'ung-li we know only that he was attached to three of Cheng Ho's expeditions, that he and Ma Huan recorded the results of their observations in foreign countries, and arranged their notes in the form of a book, Ma Huan's *Ying-yai sheng-lan*.² We do not know the manner in which, or the degree to which, Kuo Ch'ung-li 'collaborated' with Ma Huan, and therefore no comment can be made on Kuo Ch'ung-li's part in the work.

Kung Chen and Fei Hsin both wrote their own books; and these books have much in common with Ma Huan's *Ying-yai sheng-lan*. Kung Chen's version is largely identical with that of Ma Huan, and Fei Hsin 'utilized the text of Ma Huan'. It is not known how the community of ideas and expressions came about; and in the absence of more detailed information, the editor provisionally concludes that one or more texts 'circulated' between these three writers.³

Kung Chen's book has only recently been discovered and re-published; and it can now be added to the corpus of Chinese books which, between 1226 and 1520, describe various Asian countries in the same form; these books are: Chao Ju-kua's *Chu-fan chih* (1226), Wang Ta-yüan's *Tao-i chih-lüeh* (1350), Kung Chen's *Hsi-yang fan-kuo chih* (1434), Fei Hsin's *Hsing-ch'a sheng-lan* (1436), Ma Huan's *Ying-yai sheng-lan* (c. 1433), and Huang Sheng-tseng's *Hsi-yang ch'ao-kung tien-lu* (1520). This corpus is preceded by Chou Ch'ü-fei's *Ling-wai tai-ta* (1178), and succeeded by Chang Hsieh's *Tung Hsi yang k'ao* (1618), which are in a different form.

Kung Chen and Fei Hsin are important because they largely confirm Ma Huan, because they sometimes add to Ma Huan, and because their texts are sometimes preferable to that of Ma Huan. Like other travellers, they occasionally talk wild nonsense, for instance, about flying spooks in Champa. This section contains brief notes on Kung Chen, Fei Hsin and Conti, and

¹ Duyvendak, *Ma Huan*, p. 17.

² See above, Ku P'o's Afterword of 1451.

³ Compare Pelliot, 'Voyages', p. 336, n. 6, and p. 338.

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on their descriptions, and some comparisons are made between their accounts and that of Ma Huan.

Kung Chen

This writer came from Nanking and at the age of about sixteen years he enlisted in the army, so that, like Fei Hsin, he served as a soldier. In due course the authorities promoted him to be a private secretary, and when the Hsüan-te emperor ordered Cheng Ho to proceed on his seventh and last expedition (1431-3), Kung Chen was appointed to be private secretary to the commander-in-chief. On his return in 1433 Kung Chen commenced to write his account of the countries which he had visited, and his Foreword is dated 9 February 1434. We do not know his *tzu* or courtesy-name, but at the time when he wrote he had adopted the literary name of Yang Su-sheng and was residing at Peking. Kung Chen called his book *Hsi-yang fan-kuo chih*, 'Records of Foreign Countries in the Western Ocean'.¹

We do not know when the book was published; it never enjoyed a wide circulation, and until recent years we knew its contents only from three notices, of which one is uninformative, another has been translated into English by Rockhill, and the third translated into French by Pelliot.² A few years ago, however, a manuscript copy of the book was presented to the Peking Library, and in 1961 Hsiang Ta published this text with annotations. It has not been translated into English or French.

The Foreword. Kung Chen here tells us nearly all that we know about him. He emphasizes the value of the compass as well as the importance of an ability to recognize land-marks. Experienced travellers, he states, were selected to navigate the ships, and the designation applied to these navigators was *huo ch'ang*, 'fire chiefs'; the commanders were supplied with 'needle manuals' ['rutters', like the navigational section of Lü P'an and Lu Ch'eng-en's 'Ping ch'ien', 'A Military Manual'] and 'map-forms' [sketch-maps, like the Mao K'un Map]; and on the majestic and peerless treasure-ships it took more than three hundred men to work the sails, anchors, and rudders. Kung Chen stresses the importance of keeping the men fit by supplying them with a sufficiency of good food and water, and he explains how fresh water was collected by water-boats at the places visited and was stored in the water-tankers which accompanied the fleets. Kung Chen claims that he wrote a complete record of the facts which he ascertained either by personal observation or through the medium of interpreters.³

¹ Hsiang Ta, *Kung Chen*, pp. 11-13; Pelliot, 'Voyages', p. 339.

² Rockhill, Part II, p. 80; Pelliot, 'Voyages', pp. 340-4.

³ Hsiang Ta, *Kung Chen*, pp. 11-13.

Ma Huan and his book

The edicts. An edict of 13 January 1421 orders the grand eunuch Yang Ch'ing and others to proceed to the Western Ocean on official business. An edict of 10 November 1421, addressed to the eunuchs Cheng Ho, K'ung Ho, [Chu] Pu-hua, and T'ang Kuan-pao, recites that the eunuch Hung Pao and others were being despatched to escort the returning foreign envoys, and orders the addressees to make all necessary provision. An edict of 25 May 1430, addressed to the Defender of Nanking, the grand eunuch Yang Ch'ing, to [the grand eunuchs] Lo Chih and T'ang Kuan-pao, and to the grand envoy Yüan Ch'eng, recites that the grand eunuch Cheng Ho and others were being despatched to Hormuz and other countries in the Western Ocean on official business, and orders the addressees to make all necessary provision for the grand eunuchs Cheng Ho, Wang Ching-hung, Li Hsing, Chu Liang, Yang Chen, and the junior lesser eunuch Hung Pao, and others.¹

The countries described. Kung Chen gives an account of the same countries as Ma Huan, and, like the latter, includes the Nicobar islands in his description of Ceylon. The book has no table of contents, and is written in the form of a continuous narrative, without headings. It occupies approximately the same length as the *Ying-yai sheng-lan*, and nearly always refers to the same topics in the same order. The text contains a number of blank spaces and other faults.

For the most part the *Hsi-yang fan-kuo chih* is a word-for-word reproduction of the *Ying-yai sheng-lan*; but there are many instances in which Kung Chen adds, changes, or omits a few words or a short sentence, sometimes writing different characters to reproduce the sounds of foreign words and place-names. And where differences exist, Kung Chen is usually shorter than Ma Huan, and as a rule the differences are unimportant.

Ordinarily, then, Kung Chen confirms Ma Huan; and this is sometimes very useful, for instance, to establish the identity of Chiu chiang with San Fo-ch'i and Palembang, or to determine the proper characters for writing the name 'Honore' (Honavar). Moreover, with one exception, Kung Chen makes all the same mistakes as Ma Huan.

On a number of points Kung Chen complements Ma Huan; thus, he writes more fully on the establishment of the Chinese depot at Malacca, on price-fixing at Calicut, and on the wearing of the Javanese sarong which he calls *ta-pu*; and, in connection with the visit of the Chinese to Mecca in 1432, he notes that Meccan envoys had come from Mecca to Calicut, and makes it clear that it was the grand eunuch Hung Pao who sent the Chinese emissaries to Mecca. Kung Chen also adds several minor details, for instance, that

¹ Compare Pelliot, 'Voyages', pp. 342-3; Pelliot, 'Notes', p. 314; Duyvendak, 'Dates', pp. 385, and 390, n. 1.

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the *beladaw* had two very sharp edges, that the Javanese queen rode to the jousts in a 'pagoda-carriage', that the skull of the buceros was sawn to make cups, and that in 1422 Aden was visited by three Chinese ships.

Despite the very great similarity between the versions of Kung Chen and Ma Huan, there are yet many inconsistencies. Some of these relate to important matters and on several points the statements of Kung Chen ought certainly to be preferred; for instance, that ships sailing from Poulo Weh to Ceylon travelled with a fair wind from the north-east, whereas Ma Huan incorrectly states that they travelled towards the north-east; that at Hormuz the local name for amber was *sa-pai* (Persian *sah-boi*) in preference to Ma Huan's inexplicable *sa-pai-chih*; also that in the Ka'ba at Mecca gold was used for *ch'eng lou*, 'the receptacles for [candle] drippings', whereas Ma Huan says that it was used for *ko*, apparently 'screens'; we should also accept Kung Chen's reading 'Ch'i-lai' for the name 'Kelai' in the Maldive islands in preference to Ma Huan's incorrect reading 'Ch'i-ch'üan'.

Probably, too, we should prefer certain other statements of Kung Chen; for example, that the journey of about ten miles from Cangu to Majapahit took half a day, whereas Ma Huan alleges that it took a day and a half. On a number of important points, again, we cannot say for certain which writer ought to be preferred; thus, whether the cloth in Bengal called *pei-po* was known in the Chinese language as *ts'ao pu* as Kung Chen says or as *pi pu* as Ma Huan has it.

In the sphere of less important matters, sometimes we should certainly prefer Kung Chen, as when he states that a certain Bengal cloth was the colour of 'ginger-yellow', that is, turmeric, whereas Ma Huan calls it 'ginger-black'; sometimes we should probably prefer Kung Chen, as when he says that among the fruits at Mecca they found the grape, whereas Ma Huan in this context has turnip; and on many points we cannot be sure which writer is correct, as when in a list of vegetables at Calicut Kung Chen mentions coriander whereas Ma Huan specifies caraway seeds. Kung Chen occasionally misses a point which Ma Huan notices; for instance, he does not note that in Champa silver was sometimes used as a medium of exchange.

Further comments. Kung Chen's Foreword provides several items of important information which have not been found elsewhere; the edicts supply the names of Cheng Ho's principal companions on the expedition of 1431-3; and the descriptions of Asian countries are in general as informative as, and in a few respects superior to, those of Ma Huan, who has hitherto been regarded as the most complete and interesting of the early fifteenth-century Chinese travellers; but the important book of Kung Chen, like that of Ma Huan and of Fei Hsin, was almost forgotten by the eighteenth century, and

Ma Huan and his book

when the commissioners were collecting the imperial library for the Ch'ien-lung emperor, they could secure only a manuscript copy of Kung Chen's book, which was sent to them by the governor of Chekiang province.¹

Hsiang Ta's edition. Hsiang Ta, in his useful edition of 1961, supplies headings denoting the countries described, corrects the text after collating the *Ying-yai sheng-lan* and other books, and provides explanatory footnotes.

Hsiang Ta adds three appendices; the first contains three notices of Kung Chen's book; the second reproduces six texts, namely, (i) the epitaph, composed by Li Chih-kang, of Cheng Ho's father Ma Ha-chih; (ii) the inscription dated 15 February 1409 set up by Cheng Ho in Ceylon; (iii) an inscription dated 31 May 1417 found in the Muslim cemetery at Ch'üan chou; (iv) an inscription dated 14 March 1431 in the palace of the Celestial Spouse at Liu chia chiang; (v) an inscription dated 5 December 1431 originally in the temple of the Celestial Spouse at Ch'ang lo, and (vi) the essay entitled *Hsia Hsi-yang*, 'Down to the Western Ocean', in Chu Yün-ming's *Ch'ien-wen chi*, 'A Record of Things once Heard'.² The third appendix consists of a tabular statement specifying and identifying the various countries and localities described by Fei Hsin, Ma Huan, and Kung Chen.

Hsiang Ta adds a map of southern Asia containing some of the names appearing in the sailing directions of Chang Hsieh's *Tung Hsi yang k'ao*, 'A Study of the Eastern and Western Oceans'.

Fei Hsin

Fei Hsin came from a family of humble scholars residing in the K'un shan district of Su chou prefecture. He was born in 1388, and at the age of thirteen years had to take up military service at T'ai ts'ang, replacing his dead brother who was serving in the garrison as an exile for some crime of his father or grandfather. He read extensively, and when twenty-one years old he was chosen to accompany Cheng Ho's third expedition (1409-11) in a military capacity. He also accompanied three other expeditions, namely, that of Yang Ch'ih (Yang Min ?) in 1411-14, and the fifth (1417-19) and seventh (1431-3) expeditions of Cheng Ho.

After his return in 1433 he composed a book containing notes on various countries and localities in the Southern and Western Oceans. The Foreword is dated 1436, and he gave his book the pompous title of *Hsing-ch'a sheng-lan*, 'The Overall Survey of the Star Raft', the 'Star Raft' being the ship which

¹ Pelliot, 'Voyages', p. 340.

² On these texts see Pelliot, 'Notes', pp. 274 ff., 309-11, 314; 'Voyages', pp. 305 ff.; Duyvendak, 'Dates', pp. 368-72, 381, 343 ff., 349 ff., 390-1. There are errors in Hsiang Ta's reprints and they should be checked with the original texts.

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carried the imperial ambassador. From a biographical note by Yü Feng-shih we learn that Fei Hsin's style was Kung-hsiao, and that some cuts in his book were made by Chou Fu-chün, a man from the same district as Fei Hsin.

We do not know when the book was first printed, and the earliest known version is to be found in a collection called *Ku-chin shuo-hai*, 'Ancient and Modern Stories of the Sea', which appeared in 1544.

The complicated question of the various texts has been considered by Pelliot; here it must suffice to say that Fei Hsin originally wrote the book of 1436 in two chapters, differentiating between places which he himself had visited and places of which he knew only by hearsay. A few years later he rewrote it and added illustrations in the hope that the book might be presented to the emperor, and that he might be granted his freedom and release from onerous military service.¹

In 1915 Rockhill published an English translation of Fei Hsin's book from the version in the collection called *Chi-lu hui-pien*, 'A Collection of Records',² and in 1954 there appeared Feng Ch'eng-chün's *Hsing-ch'a sheng-lan chiao-chu*, 'The Overall Survey of the Star Raft Annotated', in which the editor composed a text based on three versions which largely resembled each other, and also printed the *Chi-lu hui-pien* text which substantially differed from the other three versions.

Fei Hsin's book is only about half the length of Ma Huan's; but he provides notes on forty-five places as compared with the twenty-one countries described under twenty headings by Ma Huan, who included the Nicobar islands under the heading of Ceylon. While nineteen places are common to both writers, Fei Hsin gives accounts of twenty-six places which are not described by Ma Huan, and the latter describes two countries which find no place in Fei Hsin.

The places added by Fei Hsin comprise the following:

(a) places personally visited

Pin-t'ung-lung country [Phan-rang]

Ling mountain [Cape Varella]

K'un-lun mountain [Grand Condore]

Chiao-lan mountain [Gelam islet]

Chiu chou mountain [Sembilan island (Sumatra)]

Lung-ya-hsi-chia [Pattani]

Lung hsien island [Poulo Rondo]

La-sa country [La'sa, near Mukalla]

¹ Pelliot, 'Voyages', pp. 264-73, 302, 329-39; Duyvendak, 'Dates', pp. 383-4, 393-4; Feng Ch'eng-chün, *Hsing-ch'a sheng-lan chiao-chu*, 'The Overall Survey of the Star Raft Annotated' (Peking, 1954), Editor's Foreword, p. 2, and Biography of Fei Hsin, p. 1.

² Rockhill, Part II, p. 73, etc.

(b) places known by hearsay

Chen la country [Cambodia]
Tung Hsi Chu [Pulau Aur]
Tan-yang [Tamiang]
Lung ya strait [Singapore strait]
Lung-ya-shan-t'i [Pulau Langkawi]
Chi-li Ti-men [Timor]
P'eng-k'eng country [Pahang]
Liu ch'iu country [Ryukyu islands]
San tao country [certain Philippine islands]
Ma-i country [Belitung island]
Chia-li-ma-ting country [Karimata island]
Chung-chia-lo [Udjung Galuh]
P'o-ni country [Brunei]
Su-lu country [Sulu]
Ta Chü-nan country [Kayankulam ?]
Chu-pu country [Giumbo]
Mu-ku-tu-shu country [Mogadishu]
Pu-la-wa country [Brava]

(This list omits Fei Hsin's Hua-mien wang kuo, 'Country of the tattooed-face king', since it is identical with Ma Huan's Na-ku-erh, 'Nagur'.) The countries peculiar to Ma Huan are Li-tai [Meureudu] and Nan-p'o-li [Atjeh].

It may be noted (i) that Ya-lu [Deli], described only in the *Chi-lu hui-pien* version, does not appear at all in the best text, and therefore we cannot entirely rely on the accuracy of the division into places visited and places not visited, and (ii) that, although Fei Hsin passed eight times between the China Sea and Malacca strait, he never visited Lung ya strait, a strait situated between Pedra Branca and the Karimun islands, and therefore we must presume that he always travelled east of Poulo Bintan and west of Poulo Kundur.

The Foreword. We have two examples of the Foreword written by Fei Hsin, and while both are dated 18 January 1436, they are couched in somewhat different terms, the one, properly attributable to the date mentioned, introducing the original composition intended for the general public, and the other, written a few years later, introducing the revised version intended for the emperor.

In general, the Foreword contains little of interest, but it tells us all that we know about the author. A part of the first Foreword was translated into French by Pelliot.¹

¹ Pelliot, 'Voyages', pp. 271-2.

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The table of voyages. After the Foreword Fei Hsin sets out in tabular form a statement of the four expeditions, between 1409 and 1433, in which he took part. The statement gives the dates, and the names of some of the commanders and some of the places visited; this, too, has been translated into French by Pelliot.¹

The localities described. In the best version of Fei Hsin's book, he gives short accounts of twenty-two localities which he visited and of twenty-three localities of which he spoke from hearsay. It is dangerous to accept what he relates from hearsay, and we need not further consider these latter accounts.

There remain the nineteen countries described by both Fei Hsin and Ma Huan. For the most part Fei Hsin agrees with Ma Huan; and it is sometimes valuable to have confirmation of Ma Huan's statements; for instance, that Malacca was formally designated a 'country' during Cheng Ho's expedition of 1409-11, or that Semudera and Calicut were the principal emporia of Sumatra and western India, respectively.

Although Fei Hsin's book is much shorter, he complements Ma Huan on many points, this being in part due to the fact that he went on certain different expeditions and visited certain different localities in the countries which they both describe; thus, Fei Hsin adds that the expedition of 1409-11 included forty-eight ships and more than twenty-seven thousand men, that in Ceylon a memorial stone was set up and that King Alagakkonara was defeated and captured, that the Chinese mission to Bengal included soldiers, received a ceremonial welcome at the customs-station of Chittagong, and was lavishly entertained by the very generous sultan of Bengal in his magnificent court at the elegant capital of Pandua; again, Fei Hsin writes more fully on certain topics which are mentioned by both writers, for instance, in the description of ambergris; finally, Fei Hsin adds a number of important details, for example, that at Semudera the *bahar* of pepper weighed three hundred and twenty Chinese *chin* (catties), that the revolt of Sekandar took place in 1413, that the ruler of Nagur sent tribute to China, that silver and copper as well as gold coins were used in Ceylon, and silver as well as gold coins at Hormuz. There exist many inconsistencies between the accounts of Fei Hsin and Ma Huan; thus, Fei Hsin represents that Phan-rang constituted a different country from Champa whereas Ma Huan indicates that it formed part of Champa; Fei Hsin notices that the king of Champa wore tortoise-shell shoes yet Ma Huan observes that he went bare-footed; Fei Hsin says that in Champa ten moons made one year although Ma Huan gives the number as twelve; Fei Hsin describes the soil of Thailand as fertile but Ma Huan alleges that it was barren; Fei Hsin thinks that burnt ambergris

¹ Pelliot, 'Voyages', pp. 272-3.

Ma Huan and his book

gives off an agreeable aroma while Ma Huan considers that it has a fetid odour; and Fei Hsin relates that in Ceylon men put on a long robe though Ma Huan recites that they had bare shoulders; moreover, Fei Hsin occasionally uses a different foreign word, as when he speaks of the mango as *an-mo-lo*, 'amra', whereas Ma Huan cites the word *an-pa*, 'amba'; finally, Fei Hsin sometimes employs different characters to represent the sounds of foreign place-names such as Quilon and other foreign words such as *kelembak*.

On a few points we ought to prefer the version of Fei Hsin to that of Ma Huan; for instance, when he states that the soil of Thailand was fertile, and when he gives the correct readings 'Ch'i-lai' and 'Kuan hsü' instead of Ma Huan's incorrect 'Ch'i-ch'üan' and 'Kuan jui', respectively, for the names 'Kelai' and 'Official island' (Male) in the Maldive islands.

Further comments. Fei Hsin provides first-hand accounts of eight localities not described by Ma Huan; and he is the first Ming writer to give notices, albeit at second-hand, of La'sa in Arabia and Mogadishu, Brava, and Gumbo in East Africa.

On the other hand, Fei Hsin lacks the precision and interest of Ma Huan; his hearsay statements must be regarded with great caution. He borrowed much from earlier writers, especially Wang Ta-yüan (1350), and his information may be incorrect as at the date when he wrote his Foreword in 1436. Furthermore, when reproducing facts stated by previous writers, he sometimes applies them to different countries, as when he ascribes to the people of Pahang the human sacrifices which Wang Ta-yüan alleges to have been made in Trengganu. Certainly his book contains a number of errors; sometimes he makes the same mistake as Ma Huan, as when he says that the western boundary of Champa was Chiao chih (Tongking), and sometimes he makes his own peculiar errors, as when he states that the northern boundary of Champa was China, or that the Nicobar islands lay five days' journey from Poulo Rondo.

The influence of Ma Huan may be discerned not only in the title of Fei Hsin's book, but also in the composition of a poem on each country; moreover, according to Pelliot, Fei Hsin took from Ma Huan the figure of forty ounces of gold paid annually by Malacca to Thailand, and some of the information on the Maldive and Laccadive islands, which Fei Hsin never visited; most curious of all, perhaps, is the appearance in both Fei Hsin and Ma Huan of the pithy four-character epigram 'He who is stronger prevails', referring to the Javanese use of the poniard. Since Fei Hsin's book is much shorter, he omits many topics to which Ma Huan refers.¹

¹ Compare Pelliot, 'Voyages', pp. 268, 333, n. 5, 389, 399; Rockhill, Part II, pp. 74, 106, n. 1, 119, 121.

Introduction

The Chinese *literati* did not regard the book as of any importance; and the Ch'ien-lung emperor's commissioners, though mentioning the book by name, did not deem it worthy of a descriptive notice.¹

Nicolò de Conti

This Venetian nobleman left home in 1419, and after residing for a time in Damascus he travelled and traded in southern Asia. He returned to Italy in 1444 and soon afterwards dictated his account of Asian countries to Poggio Bracciolini, papal secretary to Pope Eugenius IV. Poggio recorded the account in Latin, and this was translated into Castilian by Santaella; Frampton translated the Castilian version into English, and the following quotations are from Frampton's translation reproduced by Penzer and considered by him to be superior to the translation made from the Latin by J. Winter Jones for the Hakluyt Society in 1857.² Conti refers to ten of the countries described by Ma Huan, and the salient points are set out below, according to Ma Huan's order of the countries visited.

Champa. 'Cyampa' had aloes, camphor, and gold in abundance.

Java. 'Lava' possessed the most cruel people in the world. They thought nothing of killing a man, and crimes went unpunished. Debtors were enslaved by their creditors, and any debtor who ran amok was killed. The purchaser of a new knife tried it on the first person whom he met, and was not penalized. Polygamy prevailed. The people loved cock-fighting, and wagers were laid on the result.

Semudera. Here was a noble and famous city in the island named 'Taprobana' [actually Ceylon], called by the Indians 'Scyamucera'; the city had a circumference of six miles, and enjoyed great trade. The men were very cruel, polygamous, and idolatrous. They decorated their ears with rings of gold and gem-stones, and they wore linen or silk cloths down to the knees. The place had much pepper, camphor, and gold, and a fruit named Duriano.

Ceylon. The noble island of 'Zaylan' had a circumference of three thousand miles, and here were many varieties of gem-stones as well as much cinnamon. A lake contained a royal city three miles in circumference. The lords of the island belonged to the class of the 'Bragmanos' [Brahmans], who studied philosophy and astrology.

¹ Pelliot, 'Voyages', p. 266.

² D. G. E. Hall, *A History of South-East Asia* (2nd ed., London, 1964), pp. 190-1; N. M. Penzer (ed.), *The Travels of Marco Polo* (London, 1929), pp. 125 ff., 259-60.

Ma Huan and his book

Quilon. 'Coloen', a noble city three miles in circumference, produced ginger, pepper, 'Uergino' [verzino, sapan-wood], and cinnamon.

Cochin. 'Cochin', a city five miles in circumference, lay situated at the mouth of a river, and was frequented by nocturnal ichthyophagous monsters in human form.

Calicut. 'Colychachia', a coastal city eight miles in circumference, was 'the most noble in trade of Merchandise, that is in all India'. It had a great quantity of pepper, laka-wood, ginger, cinnamon, and other spices. Polyandry prevailed, and a man's land descended to his grandson.

Aden. 'Adena' had 'many edifications'.

Bengal. Fifteen days' sailing up the river 'Gangey' [Ganga] lay the city of 'Cernomen' [Sonargaon] 'very noble and plentiful'. The river in places was fifteen miles broad, and harboured crocodiles. Along the branches lay many fair gardens and habitations, and here grew giant canes [bamboos], and the fruits called *musa* [bananas] and 'nuttes of India' [coconuts]. After travelling in other parts of India Conti returned to 'Cermon' and left the country by way of 'Buffetanya' [Chittagong].

Hormuz. 'Omersia', a small island, was situated about twelve thousand paces from the mainland.

Conti's relation is disappointingly meagre and confused; but he supplements Ma Huan on certain points, for instance, regarding the occurrence of camphor in Champa and Semudera, and of cinnamon in Ceylon and Quilon, and in his wretched note on Hormuz he does at least tell us that it was an island; moreover, it is interesting to hear that polyandry was practised in Calicut, and that Conti was impressed by the Brahmans in Ceylon, the religious centre of Theravada Buddhism; on certain points, however, the views of Conti and Ma Huan are inconsistent; thus, while Conti tells us that crimes went unpunished in Java, Ma Huan was horrified by the frequency of judicial executions; again, while Conti found the men of Semudera very cruel, Ma Huan considered their customs pure and honest.

The subject on which Conti is most informative is the life and customs of the Indians, and no doubt some of these customs, such as *suttee* (the immolation of Hindu widows), applied also to Calicut, but generalizations must be made with care, since Conti's 'India' included not only the territories west of the Indus but also territories east of the Ganga, and among the 'Indians' of the latter territories he sometimes included the Chinese.

Introduction

One of the most interesting parts of Conti's relation deals with ships and navigation. The ships of 'the Indians' were bigger than those built in Italy, and were 'of twoo thousande Tunnes' with five masts and sails; they were built with 'three planckes one uppon another' below the water-line to give added strength, and were made with water-tight compartments. We presume that these were Chinese ships.

Of navigation he remarks that 'the Indians' 'sayle by the guiding of the Starres of the Pole Antartique', that they did not use 'the Loademans stone' [the compass] to the same extent as Italian navigators, and that they knew their position 'according as their Poale riseth and falleth' [that is, by the altitude of 'their Poale']. We cannot be sure whether Conti here refers to Arabs, Indians, Indonesians or Chinese. We know the stars which were used by the Arabs and Chinese,¹ but we do not know which stars were used by the Indians or Indonesians.²

¹ See Appendix 3, Miscellaneous notes on ships, seamanship, navigation, and cognate matters.

² We need a detailed study of Indian navigational methods. We also need a new critical edition of Conti's relation.

**THE OVERALL SURVEY
OF THE OCEAN'S SHORES**

MA HUAN'S FOREWORD OF 1416¹

FOREWORD²

I once looked at [a book called] *A Record of the Islands and their Barbarians*,³ which recorded variations of season and of climate, and differences in topography and in peoples. I was surprised and said 'How can there be such dissimilarities in the world?'

In the eleventh year of the Yung-lo [period],⁴ [the cyclic year] *kuei-ssu*,⁵ The Grand Exemplar The Cultured Emperor⁶ issued an imperial order that the principal envoy the grand eunuch Cheng Ho should take general command of the treasure-ships⁷ and go to the various foreign⁸ countries in the Western Ocean⁹ to read out the imperial commands and to bestow rewards.

I too was sent in a subordinate capacity as a translator of foreign documents.¹⁰ I followed the [mission] wherever it went,¹¹ over vast expanses of huge waves for I do not know how many millions of *li*; I passed through the various countries, with their [different] seasons, climates, topography, and

¹ This title does not appear in Feng's book.

² Literally, 'Notice'. A rendering of this Foreword was published by Rockhill, Part II, p. 72. The Foreword is wanting in both the Paris example of S and in the Peking National Library example of K; Feng introduced some readings from his example of S and from an anonymous MS called 'San pao cheng-i chi', 'Collected [Accounts] of San pao's Conquests of the Barbarians', now known only through a notice; see Pelliot, 'Encore', p. 211.

³ *Tao-i chih*; that is, the *Tao-i chih-lüeh*, 'A Synoptical Account of the Islands and their Barbarians' (1350) of Wang Ta-yuan; many extracts from this book were published by Rockhill, Part II, p. 61.

⁴ The 'reign-title' or 'year-period' of the emperor whose 'temple-name' T'ai-tsung was changed to Ch'eng-tsu in 1538.

⁵ 1413.

⁶ *T'ai-tsung Wen Huang-ti*, the Yung-lo emperor's posthumous title conferred on 2 October 1424; Ma Huan must have amended this Foreword which he originally wrote in 1416 (Pelliot, 'Voyages', p. 257).

⁷ A technical term for the ships of the imperial fleets despatched by the Yung-lo and Hsüan-te emperors '(for fetching) precious stones from the western ocean' (Pelliot, 'Voyages', p. 255, n. 1; Duyvendak, 'Dates', p. 388).

⁸ Ma Huan uses 'foreign' in three senses, (a) as here, non-Chinese, (b) pertaining to the country which he is describing, (c) pertaining to countries other than that which he is describing; but the context allows the sense to be understood without difficulty.

⁹ Here a vague description for what the Chinese then regarded as 'The West' in general, that is, the part of the world west of the South China Sea (Pao Tsen-peng, pp. 32-3).

¹⁰ Presumably Ma Huan had a knowledge of the Arabic script.

¹¹ Thus Ma Huan's first voyage was made with Cheng Ho's fourth expedition of 1413-15.

peoples; and I saw [these countries] with my own eyes and I walked [through them] in person. After that I knew that the statements in *A Record of the Islands and their Barbarians* were no fabrications, and that even greater wonders existed.

So I collected [notes about] the appearance¹ of the people in each country, [and about] the variations² of the local customs, also [about] the differences in the natural products, and [about] the boundary-limits. I arranged [my notes] in order so as to make a book, which I have entitled *The Overall Survey of the Ocean's Shores*. It enables an interested reader in a brief glance to learn all the important facts about the various foreign countries; and in particular he will see how the civilizing-influence of the Emperor has spread to an extent which could not be matched during former dynasties.³

But I am ashamed of my own foolishness, [for I am] a mere simpleton, who was privileged to accompany the imperial envoy, and with him [had this] 'Overall Survey'. It was in truth a wonderful opportunity [such as occurs only once] in a thousand years. [As regards] this volume, in formulating my ideas and expressing myself in words I am incapable of literary elegances, but I write of these matters with an honest pen and nothing more. [I hope that] the reader will not ridicule [my book] because of the superficiality [of its style].

This [note] will serve as a Foreword.

The lucky day of the yellow cup moon, in the fourteenth year (the cyclic year *ping-shen*) of the Yung-lo period of the Great Ming [dynasty].⁴

Written by Ma Huan, the mountain-woodcutter of Kuei chi.⁵

¹ Literally, 'ugliness or handsomeness'.

² Literally, 'dissimilarity or similarity'.

³ In Chinese eyes the barbarian envoys, being irresistibly attracted by Chinese civilization, 'came to be transformed', and their countries were enrolled as tributaries; in the twelfth century the neo-Confucian philosophers elaborated a dogma connecting foreign relations, tribute, and trade; but this theory broke down when Chinese trading fleets went to foreign countries. See Fairbank and Teng, pp. 138, 140, 204, 205. In the fifteenth century, as appears from the documents translated in the present study, Ma Huan, Ma Ching, and Ku P'o applaud the action of the emperor in taking the initiative and extending the influence of his 'majestic virtue' to the barbarians.

⁴ The date is 19 November 1416. Thus Ma Huan began to write the first version of his book fourteen months after the return of Cheng Ho's fourth expedition. The 'lucky day', *chi tan* (Giles, nos. 909; 10,633), according to the *Tz'u-hai* (under character *chi*), is the same as *shuo jih* (Giles, nos. 10,176; 5642), that is, the first day of the moon. The 'yellow cup moon', *huang chung yüeh* (Giles, nos. 5124; 2891; 13,768), according to the *Tz'u-hai* (under character *huang*), is the same as 'yellow bell moon', that is, the eleventh moon; see *chung* (Giles, no. 2893).

⁵ Kuei chi (Hwui-ki) was a *hsien* (district) forming with Shan-yin *hsien* the pre-fectural city of Shao-hsing (Shau-hing), about twenty-six miles south-east of Hang-chou (Hang-chau) in Chekiang province (Playfair, nos. 3469; 5462). C and K irregularly use the character *chi* (Giles, no. 877) for the character *chi* (Giles, no. 884).

MA CHING'S FOREWORD OF 1444¹

FOREWORD²

In olden times, when Hsiao Ho entered the frontier-gate, he acquired only maps and records;³ [and] when Hsüan-ling conquered the city, he merely gathered men.⁴ The historians wrote of them—and with ample justification.

It is magnificent to reflect how The Grand Exemplar The Cultured Emperor⁵ and The Subtle Exemplar The Elegant Emperor⁶ of our own dynasty both commanded the grand eunuch Cheng Ho to lead heroes and cross over the seas⁷ . . . and trade with the various foreign peoples. [Such] splendid men, [such] strong ships and oars, [such] proficiency in technical skill—none [of such things] existed in former times.

But [surely] in their hearts their two Majesties did not really desire boastfully to provoke numerous conflicts far and wide in distant regions? Because their fame [already] extended to the barbarians of the south and north,⁸ causing every person with a soul throughout the world, whether

¹ This title does not appear in Feng's book.

² Literally, 'Notice'. This Foreword does not appear in C, in S, or in the Peking National Library example of K; but it is to be found in the Columbia University Library copy of K and in the copy used by Feng. Apparently the Foreword has not previously been translated into English.

³ Hsiao Ho was an intimate friend and adviser of Liu Pang (later the first Han emperor Kao Ti), a leading commander of the forces belonging to the state of Ch'u; when these forces in 207 B.C. occupied Hsien yang, capital of the state of Ch'in, Hsiao Ho was overwhelmed with offerings of money, silks, and other valuables, but he would accept nothing except 'the charts, the registers, the documents, and the writings' (K. S. Latourette, *The Chinese* (3rd ed., revised, New York, 1957), p. 100; Tsui Chi, p. 78; Needham, vol. III, p. 535; H. A. Giles, *A Chinese Biographical Dictionary* (London and Shanghai, 1898); H. H. Dubs, *The History of the Former Han Dynasty*, vol. 1 (Baltimore, 1938), p. 58).

⁴ Fang Hsüan-ling assisted Li Shih-min (later the second T'ang emperor T'ai-tsung) to consolidate the newly won empire of Li Yüan (later the first T'ang emperor Kao-tsu) in 618 and the following years (Giles, *Biography*, pp. 221, 461; Latourette, *Chinese*, pp. 180-1). Consulting the *T'ang shu*, 'T'ang History', we learn that the present allusion refers to the campaigns of pacification north of the Wei river; while others wrangled over 'pearls and trinkets' in captured cities, Fang at once collected men and placed them in positions of authority where they could help the cause (*Erh-shih-wu shih*, vol. IV, *T'ang shu*, p. 3311). ⁵ The 'temple-name' of the emperor Ch'eng-tsu.

⁶ The 'temple-name' of the emperor Hsüan-tsung, whose 'reign-title' was Hsüan-te.

⁷ Feng thought that some characters had fallen out here.

⁸ Literally, 'Man mai' (Giles, nos. 7644; 7611), the wild tribes of the south and north, respectively.

stupid or alert, to be imbued with their virtue and civilizing-influence, so that all would know their Emperor and respect their parents.

Of those who received the command and went, I do not know how many million men there were; but those who performed their duty and proclaimed the imperial commands—who would they be except Master Tsung-tao Ma of Shan yin?¹ This exceedingly capable gentleman, after receiving his first appointment, crossed the ocean three times;² he travelled through every foreign country; [and] he seized gold, silk, and valuables without any benefit to himself.

And on his return he compiled a single volume [entitled] *The Overall Survey of the Ocean's Shores*. It records the distances to the lands of the island barbarians,³ the changes in the countries, the places which adjoin the boundaries, and the arrangement of cities and suburbs, with the differences of costume, the varieties of diet, the punishments and prohibitions, laws and regulations, customs and products.⁴ Nothing is left unrecorded;⁵ because it was this gentleman's intention, [and] his whole wish, to make the people of the future, for a thousand years hereafter, realize that the way of our country is in harmony with nature and that we have achieved this measure of success in civilizing the barbarians of the south and east.

The great books [written by] the historians of other days, in manifesting [this] gentleman's wishes, will hand down his name with that of Hsiao and Fang as imperishable.⁶ Is he not indeed a remarkable man?

The day before the chrysanthemum moon [in the cyclic year] *chia-tzu* of the Cheng-t'ung [period].⁷

Written by Ma Ching⁸ of Ch'ien t'ang.⁹

¹ 'Tsung-tao' constituted Ma Huan's 'courtesy name' (*tzu*). Shan yin was a *hsien* forming with Kuei chi hsien the prefectural city of Shao hsing in Chekiang province (Playfair, no. 5462).

² On Cheng Ho's fourth, sixth, and seventh expeditions.

³ Literally, 'I' (Giles, no. 5397), barbarous tribes, especially those of the east.

⁴ This list indicates the topics which were expected to be introduced in contemporary accounts of foreign travels.

⁵ This is an over-statement; there are a number of omissions; for instance, Ma Huan fails to mention the system of weights and measures used in Aden, Bengal, Hormuz, or Mecca.

⁶ History has not fulfilled Ma Ching's prognostication, for Ma Huan's book was never widely known.

⁷ The 'chrysanthemum moon' is the ninth moon, when this flower (*chu*) blooms (Giles, no. 2964); in the *chia tzu* year the ninth moon began on 11 October 1444. Thus the date of this Foreword is 10 October 1444.

⁸ Otherwise unknown; Pelliot thought that he knew Ma Huan and was probably a Muslim (Pelliot, 'Encore', p. 213).

⁹ A *hsien* forming with Jen ho (Jin-ho) hsien the prefectural city of Hang-chou in Chekiang province (Playfair, no. 936).

POEM COMMEMORATING THE JOURNEY¹

The Emperor's glorious envoy² received the divine commands,
'proclaim abroad the silken sounds,³ and go to the barbarous lands'.
His giant ship on the roaring waves of the boundless ocean rode;
afar, o'er the rolling billows vast and limitless, it strode.
The vast sea's rolling billows in lovely breakers sweep;
clusters of mounts, green floating shells,⁴ in mystery fade and peep.
Within Chan city's haven⁵ halts awhile, repose he takes;
Raise the sails! they scud along; She-p'o⁶ he quickly makes.
From the Central Glorious Country⁷ She-p'o is distant far,
a noisome steam is heaven's breath, and strange the people are.
With unkempt heads and naked feet, a barbarous tongue they speak;
dresses and hats they use not, nor rites⁸ nor virtue seek.
Here when the heavenly writing⁹ came, a happy clamour meeting,
chieftains and heads of the barbarous tribes all vied to give it greeting.
Tribute of southern gold, rare gems, from distant parts appear;

¹ The Poem appears only in C and in the copy of K. It may also be found in Lo Mou-teng's novel called *Hsi-yang chi*, 'Records of the Western Ocean', written in 1597; this gives a fabulous account of Cheng Ho's voyages (Pelliot, 'Voyages', p. 342, n. 3; A. Wylie, *Notes on Chinese Literature* (Shanghai, 1867, re-issued, Peking, 1939), p. 163). The novel contains many such poems; this particular poem appears in ch. 20, f. 52; it has a few variations of reading, none of which Feng adopts. Pelliot thought that Ma Huan wrote the poem in 1416, and that it reports observations made during the expedition of 1413-15 (Pelliot, 'Voyages', pp. 261-2, 294, and 303, n. 2). Apparently the poem has not been previously translated into English.

² Cheng Ho.

³ The emperor's words.

⁴ A picturesque image.

⁵ Champa, the territory now comprised in Central Vietnam. By 'Central Vietnam' is meant the part of Vietnam lying between 17° 59' N (Hoanh-son) in the north and 10° 30' N (Cape Ba Ké) in the south. The port was Qui Nhon, called 'New Department', Hsin chou, by the Chinese.

⁶ An old Chinese name for Java.

⁷ China.

⁸ *Li* (Giles, no. 6949); defined as 'Rules, partly defined and partly undefined, of correct conduct and good manners' (Cheng T'ien-hsi, *China Moulded by Confucius* (London, 1946), p. 37); described as 'the body of ancient custom, usage and ceremonial . . . which unnumbered generations of the Chinese people had instinctively felt to be right'; 'we may equate it with natural law' (Needham, vol. II, p. 544).

⁹ The emperor's commands.

Ying-yai sheng-lan chiao-chu

grateful, admiring our virtue, they show themselves loyal, sincere.
From She-p'o again [the envoy] the Western Ocean¹ broached;
passing on by San Fo-ch'i,² five islands³ he approached.
The peaks of Su-men-ta-la⁴ in middle ocean [stand];
foreign merchants' sea-junks pass and gather in this land.
A part of the flotilla⁵ to Hsi-lan⁶ went from here,
and to Ko-chih⁷ and to Ku-li⁸ and all foreign [places] near.
[There lies] the Liu mount⁹ country by Weak waters'¹⁰ southern shore;
an endless route they travelled, and dangerous and sore.
They wished to go to the Western Land, from afar they fixed their eyes;
but they [only] saw the glint of the waves as they joined with the green of
the skies.

The shipmen lifted up their heads; the west with the east they mixed;
only pointing to the *ch'en* star¹¹ whereby north and south were fixed.
Hu-lu-mo-ssu!¹² close to the ocean's side;
to Ta-yüan¹³ and Mi-hsi¹⁴ the travelling merchants ride.
Of the embassy of Po wang¹⁵ to distant lands we heard;
greater still the glorious favour in the present reign conferred!
A student, follower, servant, how low and humble, I!
Honoured to go with the envoy, all I visit and descry.

¹ Here the geographical name of a definite area; but the exact limits are uncertain; Feng (Poem, p. 1) regards Ma Huan as saying that the Western Ocean extended as far east as the western end of Java.

² Palembang, in southern Sumatra.

³ Wu hsü: Water Islands about six miles south-east of Malacca.

⁴ Semudera, Lho Seumawe district on the north coast of Sumatra.

⁵ The Chinese word is not in the dictionaries; it should be pronounced *tsung*, and means 'fleet'; it is used seven times by Ma Huan and twice by Huang Sheng-tseng; see Pelliot, 'Voyages', pp. 445-7, and Pao Tsen-peng, pp. 17-18.

⁶ Ceylon.

⁷ Cochin.

⁸ Calicut.

⁹ The Maldive-Laccadive groups of islands.

¹⁰ The 'Weak Waters' are here located north of the Laccadive islands.

¹¹ Polaris, the Pole Star.

¹² Hormuz.

¹³ Ferghana, modern Khokand, roughly half-way between Samarkand and Kashgar.

¹⁴ Misr, Egypt.

¹⁵ *Po wang* (Giles, nos. 9372; 12,509), that is, Chang Ch'ien, famous Chinese general who was sent to the north-west against the troublesome Hsiung-nu in 139 B.C.; the first Chinese to penetrate to Bactria (in the trans-Caspian region), he reached the outposts of the cultural influences of the Mediterranean world; he returned to China in 126 B.C. During the year 123 B.C. the emperor invested Chang Ch'ien with the title 'Marquis of Po wang'. In 122 B.C. he was sent to negotiate treaties with the kingdoms of the West, and by 115 B.C. a regular intercourse with the thirty-six states of this region had become established through his efforts (Latourette, *Chinese*, p. 105; Giles, *Biography*, p. 12; Reischauer and Fairbank, p. 99; F. Hirth, 'The Story of Chang K'ien', *Journal of the American Oriental Society*, vol. xxxvii (1917), p. 99).

Commemorative poem

Mountains high and mighty waves I ere then saw but few;
unwonted gems and jewels rare I now began to view.
Above to heaven and down to earth I looked—no boundary ran;
to heaven's ends and earth's extremes each one is the sovereign's man.¹
Union under imperial Ming our grand and great land shares;
from time forgotten until now no [other land] compares.
The Emperor's envoy, dutiful, fears to tarry and delay;
just then he meets the south wind, which points to his homeward way.
O'er waves like swimming dragons huge [the envoy's] vessel rides;
he turns his head back, mist and fog the distant desert hides.
To capital returned, the Palace² levee he attended;
in Dragon Court his tribute, every precious thing extended.
One glance of the all-wise eyes,³ and joy filled Heaven's face;⁴
all dignities, gifts, were bestowed, new pledges of Heaven's grace.⁵
Ma Huan, the mountain-woodcutter of Kuei chi.

¹ Emphasis on 'the difference between ruler and subject' was a feature of Chinese political thought.

² Literally, 'purple apartment'.

³ Literally, 'double pupils', *ch'ung t'ung* (Giles, nos. 2880; 12,308), a mark of wisdom attributed to certain sages.

⁴ The emperor's face.

⁵ Literally, 'new rain and dew', *yü lu* (Giles, nos. 13,623; 7369), that is, imperial favours.

NAMES OF THE FOREIGN COUNTRIES¹

- The country of Chan city [Champa, Central Vietnam] [1.1]
- The country of Chao-wa² [Java] [2.2]
- The country of Old Haven [Palembang] [3.4]
- The country of Hsien Lo [Siam, Thailand] [4.3]
- The country of Man-la-chia³ [Malacca] [5.5]
- The country of Ya-lu [Aru, Deli] [6.6]
- The country of Su-men-ta-la⁴ [Semudera, Lho Seumawe] [7.7]
- The country of Na-ku-erh⁵ [Nagur, Peudada] [8.8]
- The country of Li-tai [Lide, Meureudu] [9.9]
- The country of Nan-p'o-li [Lambri, Atjeh] [10.10]
- The country of Hsi-lan [Ceylon] [11.13]
- The country of Little Ko-lan⁶ [Quilon] [12.14]
- The country of Ko-chih [Cochin] [13.15]
- The country of Ku-li [Calicut] [14.16]
- The country of Liu Mountains [Maldiva and Laccadive islands] [15.11]
- The country of Tsu-fa-erh⁷ [Dhufar] [16.17]
- The country of A-tan [Aden] [17.19]
- The country of Pang-ko-la⁸ [Bengal] [18.12]
- The country of Hu-lu-mo-ssu⁹ [Hormuz] [19.18]
- The country of The Heavenly Square [Mecca] [20.20]

¹ This list appears only in C. The editor translates the list as given by Feng, who has altered the order and some of the characters. The first square bracket contains the mediaeval name when it differs from the modern name, and the modern locality when it is not immediately recognizable. Within the second square bracket, the first figure denotes the order in Feng's list, and the second figure denotes the order in C.

² Feng writes *chao* (Giles, no. 484); C prints *kua* (Giles, no. 6281), a frequent error in Chinese works.

³ For the second and third characters C wrongly prints *ko t'ü* (Giles, nos. 6069; 12,412).

⁴ For the last character C wrongly prints *t'ü*.

⁵ In the body of the work this country has no separate heading and is treated as an addendum to the description of Semudera.

⁶ C prints *ko lan* (Giles, nos. 6069; 6710); in order to comply with the body of the work, Feng introduces the word *hsiao*, 'little' (Giles, no. 4294) and writes a different character (Giles, no. 6721) for *lan*.

⁷ For the last character C wrongly prints *kuei* (Giles, no. 6430).

⁸ For the last character C wrongly prints *t'ü*.

⁹ For the character *lu* (Giles, no. 7388) C wrongly prints *erh* (Giles, no. 3333); in order to comply with the body of the work, Feng writes *mo* (Giles, no. 7994) for *mo* (Giles, no. 8016) and *ssu* (Giles, no. 10,296) for *ssu* (Giles, no. 10,262).

THE OVERALL SURVEY OF THE OCEAN'S SHORES ANNOTATED

THE COUNTRY OF CHAN CITY²

[CHAMPA, CENTRAL VIETNAM]

This is the country called Wang she ch'eng³ in the Buddhist records.⁴ It lies [in the] south of the great sea [which is] south of the sea of Kuang tung.⁵ Starting from Wu hu strait⁶ in Ch'ang lo district of Fu chou prefecture in Fu chien [province] and travelling south-west, the ship can reach [this place] in ten days with a fair wind.⁷ On the south the country adjoins Chen la;⁸ on the west it connects with the boundary of Chiao chih;⁹ [and] on both east and north it comes down to the great sea.

¹ The page-numbers in square brackets refer to the pagination in Feng Cheng-chün's edition of the Chinese text.

² Champa; Central Vietnam; at this time a powerful kingdom, important both politically and economically. The name 'Chan city', or capital of the Chan tribe, came to be used as the name for the country in general. For Champa see Hsiang Ta, *Kung Chen*, pp. 1-4; Fei Hsin, ch. 1, pp. 1-8 (Rockhill, Part II, pp. 92-9); *Ming shih*, p. 7914, row 1; R. C. Majumdar, *Ancient Indian Colonies in the Far East*; I. Champa (Lahore, 1927), pt. 1, pp. 134-8; pt. II, pp. 223-4; G. Maspero, *Le Royaume de Champa* (Paris, 1928), pp. 135-9; Le Thanh Khoi, pp. 204-20; J. Buttinger, *The Smaller Dragon* (New York, 1958), pp. 37, 56, n. 8, 190, n. 46; Coedès, *États*, pp. 228, 428-9; Hall, *History*, pp. 122, 182, 187-8.

³ Wang she ch'eng (Giles, nos. 12,493; 9789; 763), 'the town of the Royal Lodge' was Rajagrha, the old capital of Magadha in the modern Indian state of Bihar (P. Lévy, 'Les Pèlerins chinois en Inde' in *Présence du Bouddhisme* (Saigon, 1959), ed. R. de Berval, pp. 420-1, and see map facing p. 219). The location of this place in Champa remains unexplained, and Feng (p. 1) states that Ma Huan is mistaken. Chou Ch'u-fei and Chao Ju-kua mention a tradition that the place was in Pin-t'ung-lung, Panduranga, modern Phan-rang, which they say was a dependency of Champa (F. Hirth and W. W. Rockhill, *Chau Ju-kua* (St Petersburg, 1911), p. 51). Panduranga repeatedly rebelled (Majumdar, *Champa*, pt. 1, p. 77); and Chou shows that in 1178, and Ma Huan shows that in 1433, it was considered a part of Champa.

⁴ *Shih* (Giles, no. 9983), the first syllable of 'Sakyamuni', 'the teacher of the Sakya tribe', the designation of the historic Buddha (Reischauer and Fairbank, p. 142).

⁵ Probably the correct reading should be that of Kung Chen, 'It lies south of the great sea of Kuang tung [Canton]'.

⁶ Five Tigers strait, in the estuary of the Min chiang.

⁷ Cheng Ho's seventh expedition took 15 days.

⁸ Cambodia.

⁹ Also called An nan by the Chinese; Tongking, Northern Vietnam; Champa lay rather to the south than to the east of it.

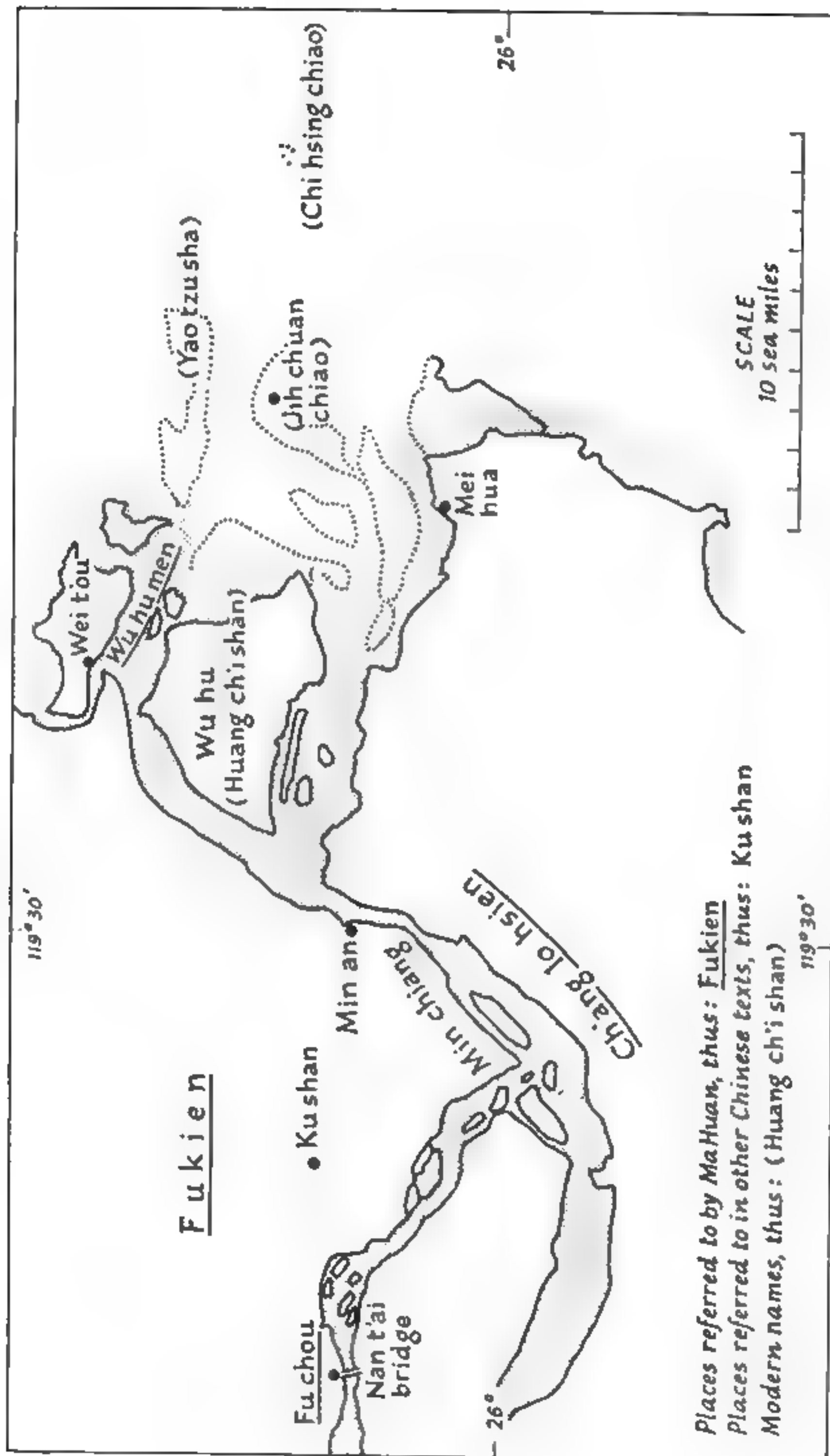


Fig. 3. Map of the Min estuary

The Country of Chan City

At [a distance of] one hundred *li* to the north-east from the capital, there is a port named New Department Haven.¹ On the shore they have a stone tower which constitutes a land-mark. Ships from all places come here [for the purpose of] mooring and going ashore. On the shore there is a fort, named by the foreigners² She pi-nai;³ they have two headmen in charge of it; [and] inside [the fort] live fifty or sixty families of foreigners, to guard the harbour.

Going south-west for one hundred *li* you come to the city where the king resides; its foreign name is Chan city.⁴ [Page 2] The city has a city-wall of stone, with openings at four gates, which men are ordered to guard. The king⁵ of the country is a So-li man,⁶ [and] a firm believer in the Buddhist religion.⁷ On his head he wears a three-tiered elegantly-decorated crown of gold filigree,⁸ resembling that worn by the assistants of the *ching*⁹ actors in the Central Country. On his body he wears a long robe of foreign cloth with small designs [worked in] threads of the five colours,¹⁰ and round the lower

¹ This 'New Department Haven' is the modern Qui Nhon (13° 46' N, 109° 14' E), still called 'Hsin chou' by the Chinese (Pelliot, 'Deux Itinéraires de Chine en Inde à la fin du VIII^e siècle', *Bulletin de l'École Française d'Extrême-Orient*, vol. IV (1904), p. 205).

² By 'foreigners' Ma Huan here refers to the inhabitants of the country which he is describing.

³ Giles, nos. 9800; 8942; 8121; the citadel of 'Sri Banoy', probably to be located at the ruined citadel of Binh-lam between the capital (see below) and the bay of Qui Nhon (Pelliot, 'Itinéraires', p. 209; Majumdar, *Champa*, pt. I, p. 261, and map).

⁴ The capital town of Vijaya or Caban (Chaban) should probably be located at the site of the Tour de Cuivre (Copper Tower) marked in Majumdar's map and in the Carte de l'Indochine, File No. 166 E, 'Qui Nhon Est' (Professor E. Gaspardone: private communication). The site is 15 miles from Qui Nhon in direction 313°, that is, almost north-west, and not about 30 miles to the south-west as Ma Huan indicates. The site has not been systematically investigated.

⁵ Vira Bhadravarman (1400-41), as from 1432 known as Indravarman (Coedès, *États*, p. 396).

⁶ So-li (Giles, nos. 10,204; 6871) is a form of 'Chola', the name of the people of Coromandel. Ma Huan uses the word in a very loose sense, applying it to the king of Thailand and the king of Ceylon; here he probably means merely that the king of Champa was of Indian descent (Rockhill, Part II, p. 87, n. 1; Pelliot, 'Encore', pp. 216-17).

⁷ In addition he probably worshipped the Hindu god Vishnu, since he erected an image of that deity: see Majumdar, *Champa*, pt. I, p. 138, and compare pt. I, p. 205, 'both king and people worshipped both Siva and Buddha'.

⁸ Illustrations of tiaras from the royal treasures of Champa are given by H. Parmentier and E.-M. Durand, 'Le Trésor des Rois Chams', *Bulletin de l'École Française d'Extrême-Orient*, vol. V (1905), pp. 40-1.

⁹ The assistants of the *ching* actors played 'painted face roles portraying bad characters with vigorous action' (A. C. Scott, *The Classical Theatre of China* (London, 1957), p. 229; Pelliot, 'Encore', p. 217).

¹⁰ White, black, red, azure, and yellow.

Ying-yai sheng-lan chiao-chu

part [of his body] a kerchief¹ of coloured silk; [and] he has bare feet. When he goes about, he mounts an elephant, or else he travels riding in a small carriage with two yellow oxen pulling in front.²

The hat worn by the chiefs is made of *chiao-chang*³ leaves, and resembles that worn by the king, but has gold and coloured ornamentation; [and] differences in [the hats denote] the gradations of rank. The coloured robes which they wear are not more than knee-length, and round the lower part [of the body they wear] a multi-coloured kerchief of foreign cloth.⁴

The house in which the king resides is tall and large. It has a roof of small oblong tiles on it. The four surrounding walls are ornately constructed of bricks and mortar, [and look] very neat.⁵ The doors are made of hard wood, [and] decorated with engraved figures of wild beasts and domestic animals.

The houses in which the people live have a covering made of thatch; the height of the eaves [from the ground] cannot exceed three *ch'ih*;⁶ [people] go in and out with bent bodies and lowered heads; [and to have] a greater height is an offence.

As to the colour of their clothing: white clothes are forbidden, and only the king can wear them; for the populace, black, yellow, and purple coloured [clothes] are all allowed to be worn; [but] to wear white clothing is a capital offence.

The men of the country have unkempt heads; the women dress [*Page 3*] the hair in a chignon at the back of the head. Their bodies are quite black. On the upper part [of the body] they wear a short sleeveless shirt, and round the lower part a coloured silk kerchief. All [go] bare-footed.⁷

¹ *Shou chin* (Giles, nos. 10,011; 2041), 'hand cloth', in Ma Huan a piece of fabric in which the people of the Western Ocean wrap themselves (Pelliot, 'Voyages', p. 419); he often uses the expression, applying it, among other things, to the Malay *sarong*.

² For an account of the royal life in Champa, see Majumdar, *Champa*, pt. I, pp. 160-3.

³ The first character is Giles, no. 1308; the second character does not appear in the dictionaries; no doubt it should be pronounced as Giles, no. 390; the expression is a transliteration of the Cham word *kajan* or the Javanese and Malay word *kajang*, a waterproof matting made from the leaves of screw-pines (*pandanaceae*); see Yule and Burnell under 'Cadjan', p. 139b.

⁴ For the functions of the chiefs in the administrative system and the status of the aristocracy in society, see Majumdar, *Champa*, pt. I, pp. 148-51 and pt. II, pp. 214-19.

⁵ Cham monuments, mainly built of bricks, have mostly disappeared; Cham temples are described by Majumdar, *Champa*, pt. II, ch. x, and P. Stern, *L'art du Champa* (Paris, 1942); but Cham achievements in architecture and sculpture do not equal the masterpieces of Burma, Thailand, Cambodia, and Java, and they are ignored by Le May, *The Culture of South-East Asia* (London, 1956); for a comparative sketch see M. Hallade, *Arts de l'Asie Ancienne, II. L'Asie du Sud-Est* (Paris, 1954).

⁶ That is, 36.7 inches.

⁷ For the dress of the people see Majumdar, *Champa*, pt. II, pp. 220-2.

The Country of Chan City

The climate is pleasantly hot, without frost or snow, always like the season in the fourth or fifth moon. The plants and trees are always green.

The mountains produce ebony, *ch'ieh-lan*¹ incense, Kuan yin bamboo, and laka-wood.² The ebony is a very glossy black, and decidedly superior to the produce of other countries. The *ch'ieh-lan* incense is produced only on one large mountain in this country, and comes from no other place in the world; it is very expensive, being exchanged for [its own weight in] silver.

The Kuan yin bamboo resembles a small rattan stick; it is one *chang* seven or eight *ch'ih* in length,³ and iron-black [in colour]; it has two or three joints to every one inch; it is not produced elsewhere.

Rhinoceros'⁴ and elephants' teeth are very abundant. The rhinoceros resembles a water-buffalo in shape; a large one [weighs] seven or eight hundred *chin*;⁵ the whole body is hairless, black in colour, and all covered with scales; the skin is lined, mangy, and thick; the hoof has three digits;⁶ [and] the head has one horn which grows in the middle of the bridge of the nose, a long horn being one *ch'ih* four or five *ts'un* [in height].⁷ It does not eat grass, but it eats prickly trees and prickly leaves; it also eats large [pieces of] dry wood. It drops excrement which resembles the sumach-refuse⁸ of a dyer's shop.

Their horses are short and small, like donkeys. Water-buffaloes, yellow

¹ Giles, nos. 1558; 6732; the expression may be a transliteration of the Malay word *kelembak*, the finest kind of lign-aloes (lignum-aloes, aloes wood, aquila-wood, eagle-wood); alternatively the Chinese may have learnt the word from the Persians, from whose tongue the Malay word was derived; lign-aloes is an odoriferous concretion caused by disease in the wood of about half the trees comprising the genus *Aquilaria*; it was once much valued in Europe as an incense (Yule and Burnell, under 'Calambac', p. 144a; Hirth and Rockhill, p. 205, n. 1; Rockhill, Part II, p. 86; J. Filliozat, 'L'Agalloche et les manuscrits sur bois dans l'Inde et les pays de civilisation indienne', *Journal Asiatique*, vol. CCXLVI (1958), pp. 86-9; Wheatley, 'Commodities', under 'Gharuwood' p. 69.

² *Chiang chen hsiang* (Giles, nos. 1255; 589; 4256), 'aromatic which brings down the True-Ones'; Malay *kayu laka*, whence 'cayolaque', sometimes 'laka-wood' in English; a rose-wood liana, *Dalbergia parviflora* of the East Indies, whose scented heartwood is still imported into China for 'joss-sticks' (Yule and Burnell, under 'Cayolaque', p. 177b; Hirth and Rockhill, p. 211; Pelliot, 'Voyages', p. 381; E. H. Schafer, 'Rose-wood, Dragon's Blood and Lac', *Journal of the American Oriental Society*, vol. LXXVII, pt. 2 (1957), p. 134; Wheatley, 'Commodities', p. 119).

³ That is, about 17½ or 18½ feet.

⁴ K has 'rhinoceros horns'. On rhinoceros horn see Wheatley, 'Commodities', p. 77.

⁵ That is, about 900 or 1000 pounds.

⁶ Literally, 'three treads'; according to the *Tz'u-hai*, the character *ch'ia* (Giles, no. 1195) is used for *chih* (Giles, no. 1896) and the latter is used for *t'a* (Giles, no. 10,496), 'to tread on'. The editor has been advised to translate 'three digits'.

⁷ That is, about 17 or 18 inches.

⁸ Feng adopts the reading of K; Pelliot, differing from Duyvendak, had already suggested this reading; sumach is *Rhus succedanea* (Pelliot, 'Voyages', p. 355).

oxen, pigs and goats—all these they have. Geese and ducks are scarce. The fowls are small; the largest ones do not exceed two *chin* [in weight];¹ [and] their legs are one and a half *ts'un* and at the most two *ts'un*, in height.² The cock birds have red crowns and white ears, with small waists and high tails; they crow, too, when people take them up in their hands; [they are] very likeable.

For fruits, they have such kinds as the plum, orange, water-melon, sugarcane, [Page 4] coconut, jack-fruit³ and banana. The jack-fruit resembles the gourd-melon;⁴ the outside skin is like that of the litchi from Ch'uan;⁵ inside the skin there are lumps of yellow flesh as big as a hen's egg, which taste like honey; inside [these lumps] there is a seed resembling a chicken's kidney; [and] when roasted and eaten, it tastes like a chestnut.

For vegetables, they have the gourd-melon, cucumber, bottle-gourd, mustard plant, onion and ginger, and that is all; other fruits and vegetables are entirely lacking.

Most of the men take up fishing for a livelihood; they seldom go in for agriculture, and therefore rice and cereals are not abundant.⁶ In the local varieties of rice the kernel is small, long, and reddish. Barley and wheat⁷ are both wanting. The people ceaselessly chew areca-nut⁸ and betel-leaf.⁹

When men and women marry, the only requirement is that the man should first go to the woman's house, and consummate the marriage. Ten days or half a moon later, the man's father and mother, with their relatives and friends, to the accompaniment of drums and music escort husband and wife back to [the paternal] home; then they prepare wine and play music.¹⁰

As to their wine: they take some rice and mix it with medicinal herbs, seal [the mixture] in a jar, and wait till it has matured. When they wish to drink it, they take a long-jointed small bamboo tube three or four *ch'ih*¹¹ in length,

¹ That is, 2.6 pounds avoirdupois. ² The equivalent of 2 *ts'un* was 2.4 inches.

³ *Po-lo-mi* (Giles, nos. 9336; 7291; 7834); this foreign name had become a Chinese expression long before Ma Huan's time (Hirth and Rockhill, p. 212); it is the fruit of *Artocarpus integra* Merr. (Wheatley, 'Commodities', p. 73).

⁴ *Tung kua*, 'winter gourd' (also called 'eastern gourd'), the 'white gourd or gourd-melon', *Benincasa cerifera* (B. E. Read, *Chinese Medicinal Plants* (Peking, 1936), p. 14, no. 56).

⁵ That is, the litchi (*Nephelium litchi*) from the province of Szechwan.

⁶ For the economic condition of the people, see Majumdar, *Champa*, pt. II, p. 222.

⁷ Literally, 'great and small wheat'.

⁸ *Pin-lang* (Giles, nos. 9247; 6779); apparently derived from the Cham *pinōng* through the Amoy colloquial *pin-nng*; Malay *pinang*, *Areca catechu*; the so-called 'areca-nut' (wrongly termed 'betel-nut') is the seed of this palm (Hirth and Rockhill, p. 213; Wheatley, 'Commodities', p. 67).

⁹ Leaf of *Piper betel*, chewed with areca-nut parings (Yule and Burnell, under 'Betel', p. 89a).

¹⁰ For Cham marriages, see Majumdar, *Champa*, pt. II, p. 226.

¹¹ The equivalent of 3 *ch'ih* was 36.7 inches.

The country of Chan City

insert it into the wine-jar, and sit around; [then they] put in some water according to the number of persons, and take it in turns to suck up [the wine] and drink it; when [the jar] is sucked dry, they again add water and drink; [this they do] until there is no [more] taste [of wine]; [and] then they stop.¹

As to their writing: they have no paper or pen; they use [either] goat-skin beaten thin or tree-bark smoked black; and they fold it into the form of a classical book, [in which], with white chalk, they write characters which serve for records.²

As to the punishable offences [in this] country: for light [offences], they employ thrashing on the back with a rattan stick; for serious [offences], they cut off the nose; for robbery, they sever a hand; for the offence of adultery, the man and the woman are branded on the face so as to make a scar; for the most heinous offences, they take a hard wood [stick], cut a sharp point to it, and set it up on [Page 5] a [log of] wood which resembles a small boat; [this] they put in the water; [and] they make the offender sit on the wood spike; the wood [stick] protrudes from his mouth and he dies; [and] then [the corpse] is left on the water as a warning to the public.³

In the determination of time⁴ they have no intercalary moon, but twelve moons make one year. [One] day and night are divided into ten watches, which they signal by beat of drum. As to the four seasons: they take the opening of the flowers as spring, and the falling of the leaves as autumn.

On the day of the New Year holiday the king takes the gall of living persons, mixes it with water, and bathes [in it]; the chiefs of every locality collect [this gall and] offer it to him as a ceremonial presentation of tribute.⁵

When the king of the country has reigned for thirty years, he abdicates

¹ A similar custom exists among the Kelabits of Borneo (Chong Ah Onn, 'Kelabit Customs and Practice', *Malaya* (May, 1955), p. 31).

² The Chams adopted the alphabet of Southern India, but as from the eighth century local variations were evolved (R. C. Majumdar, 'La Paléographie des Inscriptions du Champa', *Bulletin de l'École Française d'Extrême-Orient*, vol. xxxii (1933), p. 139; K. A. N. Sastri, 'L'Origine de l'alphabet du Champa', *Bulletin de l'École Française d'Extrême-Orient*, vol. xxxv (1936), pp. 235, 240-1). The Cham language is a curious mixture of Indonesian and Mon-Khmer.

³ For the administration of justice, see Majumdar, *Champa*, pt. II, pp. 150-1.

⁴ Literally, 'days and moons'. Champa used the Saka or Shaka era (which may be equated with the Christian era by adding 78½ years) and the *amanta* system of computing months (Sastri, 'Alphabet', p. 235), that is, the system of reckoning from New Moon to New Moon.

⁵ Kung Chen also states that gall was used in the royal bath. Feng (p. 5) thought that Ma Huan based this passage on the account of Wang Ta-yüan, who, however, alleges that the gall was bought and drunk by the officials (Rockhill, Part II, p. 85); this is the version referred to by Majumdar, *Champa*, Part II, p. 229; Fei Hsin, again, says that the gall was drunk by the king and his family (Rockhill, Part II, p. 94).

and becomes a priest, directing his brothers, sons, and nephews¹ to administer the affairs of the country. The king goes into the depths of the mountains, and fasts and does penance,² or else he [merely] eats a vegetarian diet. He lives alone for one year. He takes an oath by Heaven and says 'When formerly I was the king, if I transgressed while on the throne, I wish wolves or tigers to devour me, or sickness to destroy me.' If, after the completion of one whole year, he is not dead, he ascends the throne once more and administers the affairs of the country again.³ The people of the country acclaim him, saying 'Hsi-li Ma-ha-la-cha',⁴ this is the most venerable and most holy designation.

The so-called 'corpse-head barbarian' is really a woman belonging to a human family, her only peculiarity being that her eyes have no pupils; at night, when she is sleeping, her head flies away and eats the tapering faeces of human infants; the infant, affected by the evil influence which invades its abdomen, [Page 6] inevitably dies; [and] the flying head returns and unites with its body, just as it was before. If [people] know [of this] and wait till the moment when the head flies away, [and then] remove the body to another place, the returning [head] cannot unite [with the body], and then [the woman] dies.⁵ If the existence of [such] a woman in a household is not reported to the authorities, in addition to the killer the whole family become parties to an offence.

Again, there is a large pool connected with the sea, called 'the crocodile pool'; if in litigation between persons there is a matter which is difficult to elucidate and the officials cannot reach a decision, they make the two litigants ride on water-buffaloes and cross through this pool; the crocodiles come out and devour the man whose cause is unrighteous; but the man whose cause is righteous is not devoured, even if he crosses ten times; [this is] most remarkable.⁶

¹ Or 'a brother, son, or nephew'; Ma Huan fails to make it clear whether the king delegated his powers to one person or to a committee of all these persons. Feng should have read *chih* (Giles, no. 1819), 'nephew', as in K, instead of *chih* (Giles, no. 1818), which means 'firm'.

² *Ch'ih chai shou chieh* (Giles, nos. 1982; 234; 10,016; 1531). Ma Huan applies the expression to the Buddhists of Thailand and also to the Muslims of Java and of Malacca.

³ Examples of kings who abdicated in order to devote themselves to religious practices are quoted by Majumdar, *Champa*, pt. 1, pp. 35, 87, 163; but he does not mention any resumption of the throne.

⁴ 'Sri Maharaja', a Sanskrit title, 'Noblest Sovereign', also used in Sri Vijaya (Palembang) and Malacca.

⁵ Similar banshees were said to exist at Malacca. Feng (p. 5) thought that Ma Huan based this passage on Wang Ta-yuan's account of Phan-rang; for which see Rockhill, Part II, p. 97.

⁶ Compare Majumdar, *Champa*, pt. 1, p. 151 on 'the Divine Judgment'; where, however, the rendering, based on Maspero, needs to be corrected (Duyvendak, *Ma Huan*, p. 28). Ma Huan describes another form of ordeal at Calicut.

The Country of Chan City

In the mountains beside the sea there are wild water-buffaloes, very fierce; originally they were domestic plough-oxen which ran away into the mountains; [there] they lived and grew up by themselves, and [in the course of] long years they developed into herds; but if they see a strange man wearing blue¹ clothes, they will certainly pursue him and gore him to death; [they are] most vicious.

The foreigners are very particular about their heads; [and] if [anyone] touches them on the head, they feel [the same] hatred against him as [we in] the Central Country [feel against] a murderer.²

In their trading transactions they currently use pale gold which is seventy per cent [pure], or else [they use] silver.³

They very much like the dishes, bowls, and other kinds of blue porcelain articles,⁴ the hemp-silk,⁵ silk-gauze, beads,⁶ and other such things from the Central Country, and so they bring their pale gold and give it in exchange. They constantly bring rhinoceros' horns, elephants' teeth, *ch'ieh-lan* incense, and other such things, and present them as tribute to the Central Country.⁷

¹ Or perhaps 'black'; *ching* (Giles, no. 2184) is the colour of nature; hence the word may be applied to a black ox, a grey horse, a green plum, or the 'white' of an egg.

² This 'touchiness' has frequently been noticed; Ma Huan says the same thing about the people of Java. Ma Huan's language is highly compressed; the last seventeen English words in this paragraph are used to translate seven characters.

³ Feng adopts the reading of K; S also states that they used both silver and gold; C should be translated 'they currently use pale gold seventy per cent [pure], which is not silver [in spite of its appearance]' (Pelliot, 'Voyages', p. 357).

⁴ The Ming blue and white was very popular abroad, the finer wares being sent to India and the Near East, and coarse and crude potteries shipped to Java, Borneo, and the Philippine Islands (C. N. Spinks, 'Siam and the Pottery Trade of Asia', *Journal of the Siam Society*, vol. XLIV (2) (1956), p. 84). See Wheatley, 'Commodities', pp. 83-5.

⁵ *Chu ssu* (Giles, nos. 2606; 10,259), 'hemp-silk'; this Chinese material, apparently a weave of ramie and silk, was in great demand in southern Asia; the king of Java wore a waist-band made of it; and see the index under 'hemp-silk'.

⁶ So translated by Pelliot, 'Voyages', p. 357.

⁷ A list of tribute-presents is given in the novel called *Hsi-yang chi*, on which see Duyvendak, 'Hsi-yang chi'. Envoys were expected to present things which were 'locally produced', and nothing else (Fairbank and Teng, p. 171).

THE COUNTRY OF CHAO-WA¹

[JAVA]

[Page 7] The country of Chao-wa was formerly called the country of She-p'o.² The country has four large towns,³ none of which is a walled city and suburban area.⁴ The ships which come here from other countries first arrive at a town named Tu-pan;⁵ next at a town named New Village;⁶ then at a town named Su-lu-ma-i;⁷ then again at a town named Man-che-po-i,⁸ where the king of the country lives.⁹

¹ Giles, nos. 484; 12,422; 'Java'. Ma Huan limits his account to the realm of Majapahit in eastern Java; in his time this realm was the supreme power, politically and economically, of Indonesia; it comprised East Java, Madura, and Bali, and possessed a sphere of influence extending over the coasts of Java and Sumatra, of the Malay peninsula as far north as Nakhon (Ligor), and of the coasts of Borneo as far north as Brunei and as far east as Bandjarmasin (Wheatley, *Khersonese*, pp. 301-3; Meilink-Roelofs, p. 22; Coedès, *États*, pp. 431, 439. Hall (*History*, pp. 82-4), following Berg, limits the state of Majapahit to East Java, Madura, and Bali. For Java see Hsiang Ta, *Kung Chen*, pp. 4-10; Fei Hsin, ch. 1, pp. 13-17 (Rockhill, Part II, pp. 246-50); *Ming shih*, p. 7916, row 2 (Groeneveldt, pp. 160-7); R. C. Majumdar, *Ancient Indian Colonies in the Far East: II. Suvarnadvipa* (pt. 1, Dacca, 1937), pp. 339-51, 404-5; B. Schrieke, *Indonesian Sociological Studies* (pt. II, The Hague-Bandung, 1957), pp. 38-44; C. C. Brown, 'Sejarah Melayu or Malay Annals', *Journal of the Malayan Branch of the Royal Asiatic Society*, vol. XXV, pts. 2 and 3 (1953), pp. 68, 82, 98; Coedès, *États*, pp. 430-6; Hall, *History*, pp. 87-9.

² Giles, nos. 9783; 9412; the ancient Chinese pronunciation of the characters is said to have been 'Japa'.

³ *Kuo* (Giles, no. 6609), 'country', here, as in some other passages, meaning 'capital, large town'; *ch'u* (Giles, no. 2660), 'place', is here a numerative (Duyvendak, *Ma Huan*, p. 29).

⁴ In the typical 'city and suburban area' of Ming times, the city was surrounded by an inner wall and the suburban area by an outer wall; see the sketch in Wang Ch'i, section *Kung-shih*, ch. 2, f. 31.

⁵ Giles, nos. 12,043; 8588; Tuban, a port on the north coast of Java, 6° 50' S, 112° 04' E. And see below on Tuban, Gresik, Surabaya, and Majapahit.

⁶ Hsin ts'un (Giles, nos. 4574; 11,968); Gresik, a port on the east coast of Java, 7° 09' S, 112° 40' E. Feng adopts the reading Hsin ts'un of S and K; for the first character C has Ssu (Giles, no. 10,296), 'latrine', which Damais, differing from Pelliot, would prefer to retain (L. C. Damais, 'Études Javanaises', *Bulletin de l'École Française d'Extrême Orient*, vol. XLVIII (1957), p. 362, n. 3); Hsin, however, is also the reading of Kung Chen and Fei Hsin.

⁷ Giles, nos. 10,320; 7388; 7576; 5485; Surabaya, a port on the east coast of Java, 7° 12' S, 112° 44' E.

⁸ Giles, nos. 7622; 542; 9340; 5397; Majapahit; the ruins are probably near Trawulan, 35 miles south-west of Surabaya.

⁹ The king is designated 'Batara' in the *Sejarah Melayu*, 'Malay Annals' (Brown, p. 32, etc.). At the time of Ma Huan's last visit in 1432, the ruler was Queen Suhita (1429-46), by religion a Hindu.

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As to the place where the king resides: the walls are made of bricks, and are more than three *chang*¹ in height; in circumference they are something more than two hundred paces;² [and] in the [walls] are set double gates, very well-kept and clean.

The houses are constructed in storeyed form, each being three or four *chang*³ in height; they lay a plank [flooring, over which] they spread matting [made of] fine rattans, or else patterned grass mats, on which the people sit cross-legged; [and] on the top of the houses they use boards of hard wood as tiles, splitting [the wood into] roofing [material].

The houses in which the people of the country live have thatch for their roofs. Every family has a store-room⁴ built of bricks in the ground; it is three or four *ch'ih*⁵ in height; [in this] they store the private belongings of the family; [and] upon this they live, sit and sleep.

As to the dress [worn by] the king of the country: his head is unkempt, or else he wears a crown of gold leaves and flowers; he has no robe on his person; around the lower part he has one or two embroidered kerchiefs of silk. In addition, he uses [a piece of] figured silk-gauze or hemp-silk to bind [the kerchiefs] around his waist; [this] is called a 'waist-band'; [and in it] he thrusts one or two short knives, called *pu-la-t'ou*.⁶ He goes about bare-footed, and either rides on an elephant or sits in a carriage [drawn by] oxen.

As to the dress [worn by] the people of the country: the men [*Page 8*] have unkempt heads; [and] the women pin up the hair in a chignon. They

¹ The equivalent of 3 *chang* was 30 feet 7 inches.

² The *pu* (Giles, no. 9485), 'pace', consisted of two steps of 2.5 feet each; it measured 61.22 inches at that time; hence 200 paces equalled 340 yards, and a rectangle within such a circumference would measure approximately 1½ acres.

³ The equivalent of 4 *chang* was 40 feet 9 inches.

⁴ *T'u k'u* (Giles, nos. 12,099; 6279), Amoy colloquial *tho kho*, 'store-room, cellar'. Overseas, the expression underwent curious mutations; in Java the Hokkiens from Fukien province extended the meaning to 'shop'; and in this sense it became widely known in the Indonesian archipelago, and was commonly used even in Holland; from 'shop' it became successively 'factory', and 'citadel'; while in Malaya the expression came to mean 'godown', 'firm with a godown', 'big commercial house'. See Duyvendak, *Ma Huan*, pp. 30-4; J. V. Mills, 'The Expression Tho-kho', *Journal of the Malayan Branch of the Royal Asiatic Society*, vol. xvi, pt. 1 (1938), pp. 137-8. Ma Huan also mentions *t'u k'u* in Cochin.

⁵ The equivalent of 4 *ch'ih* was 48.9 inches.

⁶ Giles, nos. 9456; 6653; 11,441; the Malay word *beladau*, a curved single-edged dagger. Probably the word was not then utilized by the Javanese for this dagger, but was used in the *lingua franca* which must have been spoken with and by the foreign traders in the larger emporiums (Groeneveldt, p. 172, n.). Damais has pointed out that, in their relations with the Javanese, the Chinese used, not the Javanese, but the Malay language, which from the eighth century onwards remained the language used throughout the archipelago in communications with foreigners (Damais, 'Études', p. 363, n. 3 from p. 362).

wear a garment on the upper part of the body,¹ and a kerchief around the lower part. The men thrust a *pu-la-t'ou* into the waist; from little boys of three years to old men of a hundred years, they all have these knives, which are all made of steel,² with most intricate patterns drawn in very delicate lines;³ for the handles they use gold or rhinoceros' horn or elephants' teeth, engraved with representations of human forms or devils' faces, the craftsmanship being very fine and skilful.

The people of the country, both men and women, are all particular about their heads;⁴ if a man touches their head with his hand, or if there is a misunderstanding about money at a sale, or a battle of words when they are crazy with drunkenness, they at once pull out these knives and stab [each other]. He who is stronger prevails.⁵ When [one] man is stabbed to death, if the [other] man runs away and conceals himself for three days before emerging, then he does not forfeit his life; [but] if he is seized at the very moment [of the stabbing], he too is instantly stabbed to death.

The country has no [such] punishment as flogging; no [matter whether] the offence be great or small, they tie both [the offender's] hands behind his back with a fine rattan, and hustle him away for several paces, then they take a *pu-la-t'ou* and stab the offender once or twice in the small of the back or in the floating ribs, causing instant death. According to the local custom of the country no day [passes] without a man being put to death; [it is] very terrible.⁶

Copper coins of the successive dynasties in the Central Country are in current use universally.⁷

¹ Apparently this statement refers only to the women. K says that no garment was worn on the upper part of the body, and Kung Chen and Fei Hsin agree.

² *Pin t'ieh* (Giles, nos. 9243; 11,156), a very fine steel which was brought from Persia and made extremely sharp swords; in the twelfth century it was imported into China from the country of the Arabs (E. Bretschneider, *Mediaeval Researches* (London, 1888), vol. 1, p. 146, n. 395).

³ Literally, 'rabbit's-hair snow-flakes'.

⁴ Ma Huan said the same thing about the Chams. The feeling of the Javanese is mentioned also by Barbosa, do Couto, Castanheda, and Middleton; a touch on the head made the people of Malacca 'very angry'; and the Thai people, too, have great respect for the head.

⁵ A concise epigram in four characters; we might almost translate 'might is right'; Fei Hsin uses the identical expression, presumably copying from Ma Huan.

⁶ Judicial functions were performed by two Dharmadhyaksas and seven Dharmadhikaranas. A stereotyped form of highly organized and efficient bureaucratic administration under an absolute monarch continued throughout the Hindu period, that is until at least 1513 (Majumdar, *Suvarnavisa*, pt. 1, pp. 405, 433, 435).

⁷ Ma Huan mentions Chinese cash as current in other places; see the index under 'cash'. The Chinese government issued copper currency under the Western Han dynasty (206 B.C.—A.D. 8); the export of copper was first prohibited in 780, but despite frequent prohibitions which were usually ignored, there was a perennial shortage of

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Tu-pan, called by the foreigners 'Tu-pan',¹ is the name of a district; here there are something more than a thousand families, with two headmen to rule them; many of them are people from Kuang-tung² [province] and Chang chou³ [prefecture] in the Central Country, who have emigrated to live in this place. Fowls, goats, fish and vegetables are very cheap.

On a sandbank in the sea there is a small pool of water which is fresh and potable; it is called 'the Holy Water'. Tradition has it that in the time of the great Yüan [dynasty] [the Emperor] ordered the generals Shih Pi and Kao Hsing to attack [Page 9] She-p'o;⁴ a moon passed [and still] they could not land on the shore; the water in the ships was already exhausted; the soldiers of the army were at their wits' end; the two generals worshipped Heaven and prayed, saying 'We received the imperial order to attack the barbarians; if Heaven is with us, let a spring of water rise up; if [Heaven] is not with us, then let there be no spring'; the prayer ended, they thrust their spears with great force into the sandbank in the sea, and at once a spring of water bubbled up in the place where the spears were thrust; the water was fresh to taste; [and] all drank and were able to save their lives. Such was the help which Heaven granted. [This spring] has existed right down to the present day.

From Tu-pan, after travelling toward the east⁵ for about half a day, you reach New Village, of which the foreign name is Ko-erh-hsi;⁶ originally it

copper in and after the twelfth century; the increase in foreign trade during Sung times (960-1279) so accentuated the shortage that a cash famine occurred; Chinese cash were in demand from Japan to the Islamic lands of the West; vast quantities were exported to Java (Hirth and Rockhill, pp. 81-2; Schrieke, pt. 1, p. 247, n. 100; Jitsuzo Kuwabara, 'On P'u Shou-keng', *Memoirs of the Research Department of the Toyo Bunko*, no. 11 (1928), pp. 25-7; Duyvendak, *Africa*, p. 17; H. F. Schurmann, *Economic Structure of the Yuan Dynasty* (Cambridge, Mass., 1956), pp. 131-2, 135). The 'copper cash' was an alloy of copper and lead.

¹ Giles, nos. 12,049; 8597; the characters must have been pronounced rather differently in Ma Huan's time. Tuban was a wealthy and important port with many Chinese settlers. Being the port of Majapahit and the point of departure for the Moluccas, it exported an abundant supply of foodstuffs, and imported a rich variety of products from the Moluccas (Meilink-Roelofs, pp. 105-7). Tuban, Gresik, and Surabaya, Duyvendak thought, must have been much larger places than Ma Huan indicates (Duyvendak, *Ma Huan*, pp. 35, 36).

² Canton province.

³ A *fu* (prefecture) in Fukien province. S has 'Chang and T'ing', K has 'Chang and Ch'üan'; T'ing chou and Ch'üan chou were also prefectures in the same province, the latter being the famous 'Zaiton'.

⁴ The attack on Java occurred in 1293. Shih Pi, the commander of the expeditionary force, was a Chinese; he was assisted by I-k'o-mo-se (Ike Mese, Ihamish), a Mongol, who commanded the fleet, and Kao Hsing, a Chinese, who led the infantry. For the accounts in the *Yüan shih*, 'Yüan History', see Groeneveldt, pp. 147-55.

⁵ Ma Huan omits to mention that from Tuban a ship has to travel almost due south for the last third of the journey.

⁶ Giles, nos. 6073; 3333; 4105; Gresik. Founded by Chinese between 1350 and 1400, this excellent port rose rapidly in importance after 1400; it obtained spices from the

was a region of sandbanks; [and] because people from the Central Country came to this place and established themselves, they therefore called it New Village; right down to the present day the ruler of the village is a man from Kuang tung [province]. There are something more than a thousand families [here]. Foreigners from every place come here in great numbers to trade. Gold, all kinds of precious stones, and all varieties of foreign goods are sold in great quantities.¹ The people are very wealthy.

From New Village, after travelling toward the south for more than twenty *li*,² the ship reaches Su-lu-ma-i, of which the foreign name is Su-erh-pa-ya.³ At the estuary the out-flowing water is fresh. From here large ships have difficulty in proceeding; [so] they use small ships, which travel for more than twenty *li* till they first reach this district.⁴ [Here] also there is a ruler of the village, governing more than a thousand families of foreigners; and amongst these, too, there are people from the Central Country.

In the estuary there is an island of dense jungle, in which there are thousands of long-tailed monkeys; [Page 10] over them all there is one black-coloured old male monkey who acts as their lord; while at his side he has an old foreign woman who keeps him company; childless women of the country prepare such things as wine, rice, fruit and cakes, and go to invoke the old monkey; if the old monkey is pleased, he first eats [some] of the things, and makes all the monkeys fight to eat what remains; they finish eating, [and] then two monkeys come forward and couple, as an omen; these women return home and at once become pregnant; if [the monkeys] had not [coupled], then [the women would] not have a child;⁵ it is very remarkable.

From Su-erh-pa-ya⁶ small ships travel for seventy or eighty *li* to a port Moluccas and sandalwood from Timor, and these articles were exchanged for rice, textiles, and ceramics. It later outstripped Tuban and became the most important spice-port (Schrieke, pt. 1, p. 25; pt. 11, p. 296; Meilink-Roelofs, pp. 107, 109-10).

¹ Ma Huan does not expressly refer to pepper and spices, which formed a most important element in the trading system of eastern Java; compare Schrieke, pt. 1, p. 22.

² About 7 miles.

³ Giles, nos. 10,320; 3333; 8514; 12,797; Surabaya. A certain amount of commerce was carried on here in the early fifteenth century, but by 1500 its trade moved via the port of Gresik, and at the end of the sixteenth century it was still a hamlet (Meilink-Roelofs, pp. 110, 269; Schrieke, pt. 1, p. 24). Later it surpassed Gresik, and nowadays it is the most important town in Java after Djakarta (formerly Batavia).

⁴ About 7 miles. If Ma Huan's figure is correct, Surabaya must then have been further away from the estuary than the present-day 'old town', which is 3 miles away. Kung Chen states that the Chinese from the treasure-ships went about in a *san pan* (sampan, skiff); and this use of the term is earlier than the reference given in Shu Hsin-Ch'eng and others, *T'z'u hai* ('The Sea of Words', Shanghai, 1936-7). C omits the 25 characters which we have translated 'At the estuary' to 'this district'.

⁵ In the gloss to the account of Huang Sheng-tseng (ch. 1, f. 8v) both the feeding and the coupling were necessary to ensure pregnancy.

⁶ Surabaya.

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called Chang-ku;¹ there you go ashore, and after travelling towards the south-west for a day and a half, you reach Man-che-po-i,² the place where the king lives. This place has two or three hundred families of foreigners, with seven or eight chiefs to assist the king.

The climate is continuously hot, like summer.

The rice in the fields ripens twice in one year;³ [and] the rice-kernels are small. They have both white sesame and lentils. Barley and wheat⁴ are entirely non-existent. The land produces sapan-wood,⁵ diamonds,⁶ white sandalwood incense,⁷ nutmegs,⁸ long pepper,⁹ cantharides,¹⁰ steel, turtles'

¹ Giles, nos. 390; 6209; Canggū (Changgu, Changkir), on the left bank of the Kali Mas, about 25 miles (that is, about 75 *li*) from the mouth as the crow flies; though its trade increased with the rise of Majapahit, it was of only secondary importance as a trading centre; see Groeneveldt, pp. 158, 174; Schrieke, pt. 1, p. 24.

² Kung Chen states that the land-journey from Canggū to Majapahit took half a day. King Kertarajasa Jayavarddhana built his *kraton* or royal palace at Majapahit in 1293 (Hall, *History*, p. 76); the site is in all probability the modern village of Trawulan where extensive ruins exist; the site has been described by H. Maclaine Pont and W. F. Stutterheim, but it has not been completely examined (Damais, 'Études', pp. 354-5; C. Hooykaas, 'A Critical Stage in the Study of Indonesia's Past', in *Historians of South-East Asia* (1961), ed. D. G. E. Hall, ch. 24, p. 319). Kung Chen gives the same figure of two or three hundred families; Duyvendak regarded this as 'palpable nonsense' (Duyvendak, *Ma Huan*, p. 36); and Pelliot thought that Ma Huan might have spoken of Majapahit from hearsay (Pelliot, 'Voyages', p. 364).

³ Rice cultivation was of primary importance; not only did rice form the ordinary article of food, but it was exported to Malacca, Palembang, and Djambi, also to the Moluccas, where it was used to purchase spices which were in turn sold to Malacca or exchanged for Chinese and Indian goods (Schrieke, pt. 1, pp. 22, 29). The double-cropping proves the utilization of irrigated fields (*sawah*), in contradistinction to planting on dry ground (*ladang*), which soon exhausted the soil; see V. D. Wickizer and M. K. Bennett, *The Rice Economy of Monsoon Asia* (Palo Alto, Calif., 1941), pp. 33, 43, 287.

⁴ Literally, 'great and small wheat'.

⁵ *Su mu* (Giles, nos. 10,320; 8077), *su* being a contraction of *su-fang* (Giles, no. 3435), in Malay *sempang*, *Caesalpinia sappan*; the heart-wood of this small thorny tree produced a red dye; see Hirth and Rockhill, p. 217; Wheatley, 'Commodities', p. 108.

⁶ Diamonds would have come from western Borneo (Schrieke, pt. 1, p. 30); and see Wheatley, 'Commodities', p. 113. Possibly, however, Ma Huan refers to the wood of a tropical tree called 'diamond wood' from its white berries.

⁷ Sandalwood would have come from Timor (Schrieke, pt. 1, p. 21); and see Hirth and Rockhill, pp. 208-9; Wheatley, 'Commodities', p. 65; Meilink-Roelofs, p. 87.

⁸ Nutmegs (seeds of *Myristica fragrans*) would have come from Banda and the Moluccas (Schrieke, pt. 1, p. 21); and see Hirth and Rockhill, pp. 210-11; Wheatley, 'Commodities', p. 100.

⁹ Pepper would have come from Sunda, the Lampung region, Indrapura, Djambi, and Pattani (Schrieke, pt. 1, p. 21); and see Hirth and Rockhill, pp. 222-4; Wheatley, 'Commodities', p. 100.

¹⁰ As translated by Pelliot, 'Voyages', p. 365; it is omitted in Groeneveldt's translation, p. 174.

carapaces, and tortoise-shell.¹ As to their strange birds: they have such varieties as white cockatoos large as hens, red and green parrots, five-coloured parrots² and the mina,³ all of which can imitate human speech, also guinea-fowl,⁴ 'hang-upside-down birds',⁵ pigeons with five-coloured markings, peafowl,⁶ 'areca-palm birds',⁷ 'pearl birds',⁸ and green pigeons.

As to their curious beasts: they have white deer, white monkeys, and other such animals. Pigs, goats, oxen, [*Page 11*] horses, fowls, and ducks—all these they have; but there are no donkeys and no geese.

For fruits, they have such kinds as the banana, coconut, sugar-cane, pomegranate, the lotus seed-case,⁹ the *mang-chi-shih*,¹⁰ the water-melon, and the *lang-ch'a*.¹¹ The *mang-chi-shih* resembles the pomegranate; inside the skin it looks like the case of an orange, having four lumps of white flesh, which have a sweet-sour taste [and are] very delectable. The *lang-ch'a* is like the loquat,¹² but rather larger; inside there are three lumps of white flesh; [and] these, too, have a sweet-sour taste. The sugar-cane has a rind which is white, coarse, and big; [and] each root attains a length of two or three *chang*.¹³ In addition, they have all the gourds and vegetables; [and] the only things wanting are peaches, plums, and leeks.

The people of the country have no beds or stools for sitting on or sleeping on; and for eating they have no spoons or chopsticks. Men and women take areca-nut and betel-leaf,¹⁴ and mix them with lime¹⁵ made from clam-shells; [and] their mouths are never without this mixture. At the times when they wish to eat their rice, they first take some water and rinse out the dregs of

¹ Tortoise-shell would have come from Timor, Solor, and other places (Schrieke, pt. 1, p. 68); and see Hirth and Rockhill, p. 238; Wheatley, 'Commodities', pp. 81-3.

² On parrots see Hirth and Rockhill, p. 236; Wheatley, 'Commodities', pp. 122-3.

³ A bird of the starling family, able to articulate words; see Groeneveldt, p. 174, also Yule and Burnell, under 'Myna', p. 607a.

⁴ Literally, 'pearl fowl', identified by Pelliot, 'Voyages', p. 365.

⁵ A parakeet, with green plumage and red bill. The editor is indebted to Professor E. H. Schafer for this identification.

⁶ On peafowl see Wheatley, 'Commodities', p. 55.

⁷ Not identified.

⁸ Not identified, unless Ma Huan once more refers to the pearl fowl, which is here translated 'guinea-fowl'.

⁹ The lotus (*Nelumbo nucifera*) is valued for tonics and aphrodisiacs; the tubers and seeds are articles of food.

¹⁰ Giles, nos. 7667; 909; 9906; Malay and Javanese *manggis*, the mangosteen (*Garcinia mangostana*). This is the earliest known description of the fruit; the earliest quotation in Yule and Burnell, under 'Mangosteen', p. 557a, is dated 1563.

¹¹ Giles, nos. 6777; 226; Javanese *langsap*, Malay *langsap*, *Lansium domesticum*.

¹² *P'i-p'a* (Giles, nos. 9049; 8544), *Eriobotrya japonica*.

¹³ The equivalent of 3 *chang* was 30 feet 7 inches.

¹⁴ *Lao-yeh* (Giles, nos. 6792; 12,997), Malay *sireh*, *Piper betle*.

¹⁵ Hindustani and Malay *chunam*; see Yule and Burnell, under 'Chunam', p. 218b.

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areca-nut in their mouths; then they wash both hands clean and sit round in a circle; they have a dish well-filled with rice which they moisten with butter and gravy; [and] in eating they use the hand to take up [the food] and place it in the mouth. If they are thirsty, then they drink water. When they receive passing guests, they entertain them, not with tea, but only with areca-nut.

The country contains three classes of persons. One class consists of the Muslim people;¹ they are all people from every foreign kingdom in the West who have migrated to this country as merchants; [and] in all matters of dressing and feeding everyone is clean and proper.

One class consists of T'ang people;² they are all men from Kuang tung [province] and from Chang [chou] and Ch'üan [chou] and other such places, who fled away and now live in this country; the food of these people, too, is choice and clean; [and] many of them follow the Muslim religion, doing penance and fasting.

One class consists of the people of the land; they have very ugly and strange faces, tousled [*Page 12*] heads, and bare feet; they are devoted to devil-worship, this country being among the 'devil-countries' spoken of in Buddhist books; the food which these people eat is very dirty and bad—things like snakes, ants, and all kinds of insects and worms, which are slightly cooked by being toasted in the fire and then eaten.³ The dogs which they keep in their houses eat from the same utensils as the people, and sleep with them at night; [and] they feel not the least repugnance [about this].

The legend is told that a king of the devils, with black face, red body and red hair, had intercourse with a water-monster in this very country, and begat more than a hundred children; they always consumed blood for food and many people were eaten by them; suddenly one day a thunderclap split the rock, and inside sat a man; the people admired him and marvelled at him, so they chose him to be their king; then he took command of the expert fighting-men; the water-monster and the rest of the mob were driven away

¹ *Hui-hui* (Giles, no. 5163). 'The Semitic *khwei* = brother, constantly used by Mohammedans and consequently adopted by the Chinese as a name for them.' Without political power in the time of Ma Huan (1433), the Muslims had acquired control of certain Javanese harbours before 1500, and the Muslim coastal potentates destroyed the Hindu-Javanese kingdom of Majapahit between 1513 and 1528 (Schrieke, pt. II, p. 231; Majumdar, *Suvarnavdipa*, pt. I, pp. 401, 402, 405).

² That is, Chinese; a reference to the T'ang dynasty (618–907).

³ Majumdar considered that this description was applicable only to wild primitive tribes 'still beyond the pale of Hindu culture and civilization'. Apparently Ma Huan had no knowledge of the traditional Indonesian society with its elaborate system of social and political distinctions between ruler, aristocracy, and local communities; on this society see Majumdar, *Suvarnavdipa*, pt. II, pp. 40–60; H. W. Sundstrom, *Indonesia* (Tokyo, 1957), pp. 27–48.

and ceased to be harmful; [and] after that the people once more grew and multiplied in peace.¹ This is the reason why right down to the present day the people have loved savagery and ferocity.

They have a 'meeting of bamboo spears' regularly every year, but the tenth month is taken to be the beginning of spring.² The king³ of the country makes his wife sit in a 'pagoda-carriage' which travels in front, while he himself sits in a carriage⁴ which travels behind. This 'pagoda-carriage' is more than a *chang*⁵ in height; on [all] four sides there is a window, and underneath there is a rotating axle; [and] it goes along with horses pulling in front.

At the place of the meeting, the contestants are drawn up in a line on either side; each man grasps a bamboo spear; these bamboo spears are solid and have no iron blade; but they are cut to a point, and are very hard and sharp. Each of the male combatants brings his wife or slave-girl there, and each wife, grasping in her hand a short wooden stave three *ch'ih*⁶ long, stands between the lines. Following the sound of the drum which beats fast or slow as a signal, two men, grasping their spears, advance and make thrusts [at each other]; they engage three times; [then] the wives of the two men, both grasping their wooden staves, push them back, saying '*Na-[Page 13] la, na-la*';⁷ upon which the men separate. If [a man] dies from a stab, the king makes the victor give one gold coin⁸ to the dead man's family; [and] the dead man's wife goes off following the victor. So do they make a sport of victory and defeat in combat.⁹

¹ Rockhill thought that the story referred to the conquest of Java by Aji Saka (A.D. 78, from which dates the Javanese era) and his fights with the rakshas (demon-worshippers); see Rockhill, Part II, p. 237, n. 1; Majumdar, *Suvarnavdipa*, pt. I, pp. 94-7.

² Ma Huan expresses himself badly; what he means is that the jousting took place at the beginning of spring, which, however, occurred in the tenth moon and not in the first moon (about 5 February) as in China.

³ Ma Huan must have written this part of his book before the death of King Vikramavarddhana in 1428, since the latter was succeeded by his daughter, Queen Suhita (1429-46).

⁴ Ma Huan implies, and Kung Chen expressly states, that this was also a 'pagoda-carriage'.

⁵ The equivalent of 1 *chang* was 10 feet 2 inches.

⁶ About 3 feet 1 inch.

⁷ According to Groeneveldt (p. 176), *na-la* probably represented the Javanese word *larak*, 'to draw, pull, draw back', so the exclamation would mean 'pull them back'. Groeneveldt noted that in his day (c. 1887) the game, called *Senenan*, still existed in eastern Java, though in a somewhat modified and mitigated form; and see Schrieke, pt. I, p. 279, n. 11.

⁸ Presumably this was a foreign coin, since the Chinese writers, our principal authorities, do not mention a gold coin in Java, nor has any gold coin been found there; see Hirth and Rockhill, p. 81, and Majumdar, *Suvarnavdipa*, pt. II, pp. 36-7.

⁹ Kung Chen uses the identical words.

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As to their marriage-rites: the man first goes to the woman's family house, and the marriage is consummated; three days later the man escorts his bride [home]; whereupon the man's family beat brass drums and brass gongs, blow on coconut-shell pipes, strike drums made of bamboo tubes, and let off fire-crackers, while in front and behind they are surrounded by men with short knives and round shields. The woman has dishevelled hair, uncovered limbs, and bare feet. Around her she fastens a kerchief with silk embroidery; at her neck she puts on an ornament of gold beads strung together; [and] on her wrists she wears a bracelet ornamented with gold, silver, and other precious things. Relations, friends, and neighbours decorate a boat with such things as areca-nuts, betel-leaves, and sewn strings of grasses and flowers, and form a party to escort the bridal pair in accordance with their rite of congratulating [the newly-wed] on the happy [event]. When they reach the groom's house, they strike gongs, beat drums, drink wine, and play music. After a few days they disperse.

As to their usual funeral-rites: if they have a father or mother who is about to die, the sons and daughters first ask the fathers or mothers whether after death they will be devoured by dogs, or consumed by fire, or cast away in the waters; their fathers or mothers direct them in accordance with their real wishes; then, after the death, the sons and daughters comply with the decision contained in the dying commands. If they wish to be devoured by dogs, then they carry the corpse to the sea-side, or place it on waste land, where a dozen dogs come along; if the flesh of the corpse is devoured completely, without anything being left, it is regarded as good; [but] if it is not completely devoured, then the sons and daughters weep bitterly and cry with grief; [and] they take the bones which remain, cast them in the waters, and go away.

Moreover, when rich men and chiefs and persons of high standing [*Page 14*] are about to die, the most intimate serving-girls and concubines under their care first take an oath to their lords, saying 'In death we go with you'; after the death, on the day of the funeral, they build a high wooden framework,¹ under which they pile a heap of firewood; [and] they set fire to this and burn the coffin. The two or three serving-girls and concubines who originally took the oath wait till the moment when the blaze is at its height; then, wearing grasses and flowers all over their heads, their bodies clad in kerchiefs with designs of the five colours, they mount the framework and dance about, wailing, for a considerable time; [then] they cast themselves down into the flames, and are consumed in the fire with the corpse of

¹ *Ch'ui* (Giles, no. 2807), which now means 'cudgel'; the word must have changed its meaning. Feng does not mention the reading of K, namely, *chia* (Giles, no. 1157), 'frame'.

Ying-yai sheng-lan chiao-chu

their lord, in accordance with their rite of sacrificing the living with the dead.¹

Wealthy foreigners are very numerous. In trading transactions the copper coins of successive dynasties in the Central Country are in current use.²

For writing records they, too, have letters; [and these] are the same as the So-li³ letters. They have no paper or pen; [and] they use *chiao-chang*⁴ leaves, on which they scratch the letters with a sharp knife. They also have rules of grammar.⁵ The speech of the country is very pretty and soft.

As to their system of weights: each *chin* is twenty *liang*; each *liang* is sixteen *ch'ien*; [and] each *ch'ien* is four *ku-pang*. Each *ku-pang* equals two *fen* one *li* eight *hao* seven *ssu* five *hu* on our official steelyard, [so] each *ch'ien* equals eight *fen* seven *li* five *hao* on our official steelyard, each *liang* equals one *liang* four *ch'ien* on our official steelyard, [and] each *chin* equals twenty-eight *liang* on our official steelyard.⁶

As to their system of measures: they cut off a bamboo to make a *sheng*; this is one *ku-la*; [and] it equals one *sheng* eight *ko* [in terms of] the official *sheng* of the Central Country.⁷ As to each foreign *tou*: one *tou* is one *nai-li*;

¹ Suttee, or the immolation of widows on the funeral pyres of their husbands, was a Hindu custom, and the king and upper classes were then Hindus; see Majumdar, *Suvarnavipra*, pt. II, p. 43. Ma Huan, however, tells us nothing about their religion.

² Wang Ta-yüan (1350) says that the Javanese coined a so-called 'silver coin' made of silver, tin, lead, and copper (Rockhill, Part II, p. 237); but neither Ma Huan, nor Kung Chen, nor Fei Hsin mentions this. Chinese traders, many of them small-scale pedlars, might also use silver (J. C. Van Leur, *Indonesian Trade and Society* (The Hague-Bandung, 1955), pp. 133, 136). Trading by weight of bullion was the general system in the Far East (Boxer, p. 128, n. 3).

³ A form of 'Chola', the name of the people of Coromandel. The Javanese script was derived from a Southern Indian original; but in the middle of the eighth century, side by side with the 'Pallava' alphabet, there began to be developed a Javanese type of writing (L. C. Damais, 'Les écritures d'origine indienne en Indonésie et dans le Sud-Est Asiatique Continental', *Bulletin de la Société des Études Indochinoises*, vol. xxx (1955), p. 372).

⁴ Malay *kajang*, a general name for different palm-leaves; Ma Huan here means the leaves of the *Borassus flabelliformis*, called *lontar* in Java (Groeneveldt, p. 166, n.).

⁵ Ma Huan gives no idea of the very great range and intrinsic value of Indo-Javanese literature (Majumdar, *Suvarnavipra*, pt. II, p. 61).

⁶ The Chinese steelyard is a balance with a short arm to take the thing weighed and a long graduated arm along which a weight is moved until it balances the thing weighed. *Ku-pang* (Giles, nos. 6209; 8648) is Javanese *kobang* (Groeneveldt, p. 177). To summarize: 4 Javanese *ku-pang* equalled 1 Javanese *ch'ien*, 16 Javanese *ch'ien* equalled 1 Javanese *liang*, 20 Javanese *liang* equalled 1 Javanese *chin*, 1 Javanese *chin* equalled 28 Chinese *liang* (2 pounds 4.8 ounces avoirdupois or 1044.4 grammes).

⁷ *Ku-la* (Giles, nos. 6209; 6653) is Javanese *kulak* (Groeneveldt, p. 178). Ma Huan's Chinese equivalents show, and Kung Chen expressly states, that there were 8 *kulak* in 1 *naili* (see next note).

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[and] it equals one *tou* four *sheng* four *ko* [in terms of] the official *tou* of the Central Country.¹

On the fifteenth or sixteenth [*Page 15*] night of every moon, on a night when the moon is full, clear and bright, more than twenty, or sometimes more than thirty, foreign women gather together to form a troupe; one woman acts as leader, [and], each placing an arm on the shoulder of another, they make an unbroken line and saunter in the moonlight; their leader sings a line of a foreign song, and the whole troupe sing a response in unison; [and] when they reach the house-porch of a relative or a person of wealth and standing, they are given presents of copper coins and other such things; this is called 'a musical moonlight walk', and that is all.²

They have a class of men who make drawings on paper of such things as men, birds, beasts, eagles, or insects; [these drawings] resemble scroll-pictures; for the supports of the picture they use two wooden sticks, three *ch'ih* in height, which are level with the paper at one end only; sitting cross-legged on the ground, the man takes the picture and sets it up on the ground; each time he unrolls and exposes a section of the picture he thrusts it forward towards his audience, and, speaking with a loud voice in the foreign language, he explains the derivation of this section; [and] the crowd sits round and listens to him, sometimes laughing, sometimes crying, exactly as if the narrator were reciting one of our popular romances.³

The people of the country are very fond of the blue patterned porcelain-ware of the Central Country, also of such things as musk,⁴ gold-flecked hemp-silks, and beads. They buy these things in exchange for copper coins.

The king of the country constantly sends chiefs, who load foreign products into a ship, and present them as tribute to the Central Country.

¹ The character here rendered *nai* is not in Giles' Dictionary or in the *Tz'u-hai*; presumably it should be pronounced as Giles, no. 8122; *li* is Giles, no. 6942. The Javanese word *naili* (*nalih*, *nelly*), Malay *naleh*, is now obsolete (Groeneveldt, p. 178, n.). 8 Javanese *kulak* equalled 1 Javanese *naili*, 1 Javanese *naili* equalled 1.44 Chinese *tou* (3.4 gallons or 15.46 litres).

² This custom appears to have become obsolete; at any rate, it is not mentioned by J. Kunst, *Music in Java* (The Hague, 1949), when he describes Javanese singing. A somewhat similar entertainment was witnessed by Pietro della Valle at Ikkeri in India during 1623-4 (E. Grey, *The Travels of Pietro della Valle in India* (London, 1892), vol. II, p. 261).

³ *P'ing hua* (Giles, nos. 9310; 5017), the ancient type of Chinese romance recited by story-tellers to the crowd (Pelliot, 'Voyages', p. 370). Ma Huan gives a good account of the Wayang Beber, in which the actors are represented by pictures; see Majumdar, *Suvarnadvipa*, pt. II, p. 55; for the Javanese a wayang performance is in the highest degree educational and edifying.

⁴ An odoriferous substance obtained from the glands of certain animals; see Wheatley, 'Commodities', pp. 105-6.

THE COUNTRY OF OLD HAVEN¹

[PALEMBANG]

Old Haven is exactly the same country as that formerly named San Fo-ch'i,² [and] the foreigners call it by the name 'P'o-lin-pang'.³ [Page 16] It is under the supremacy of the country of Chao-wa.⁴ On the east it adjoins the country of Chao-wa; on the west it adjoins the borders of the country of Man-la-chia;⁵ on the south it extends to great mountains; [and] on the north it abuts on the great sea.⁶

Ships from every place come here; they first reach the Fresh Water estuary and [then] enter P'eng-chia strait;⁷ they tie up their ships to the shore, where there are many brick towers on the shore; [then] they use small ships to enter the estuary, and so they reach the capital.

Many of the people in the country are men from Kuang tung [province] and from Chang [chou] and Ch'üan [chou], who fled away and now live in

¹ *Chiu chiang* (Giles, nos. 2289; 1245), Palembang, which Ma Huan identifies with the old Sri Vijaya (see next note). For Palembang see Hsiang Ta, *Kung Chen*, pp. 11-12; Fei Hsin, ch. 1, pp. 18-19 (Rockhill, Part II, p. 140); *Ming shih*, p. 7916, row 4 (Groeneveldt, pp. 193-7); Majumdar, *Suvarnavdipa*, pt. 1, p. 203; K. A. N. Sastri, *History of Sri Vijaya* (Madras, 1949), p. 304; Coedès, *États*, pp. 437-40; Hall, *History*, pp. 85, 88.

² Giles, nos. 9552; 3589; 1074; Sri Vijaya, sometimes called 'Sri Vijayo'. A reference to the *Sung shih* (p. 5715), for which the editor is indebted to Mrs. Lu Yan-Kit, shows that the full form of the Chinese name was (San) Fo-ch'i-hu, a satisfactory transliteration of 'Vijayo'. At this time 'Sri Vijaya' denoted a state which included Palembang, Djambi (Melayu), and an undetermined area of surrounding territory. Sri Vijaya was politically insignificant; but Palembang had some economic importance in maritime commerce, though Djambi had replaced it as the capital of the state (Pelliot, 'Voyages', pp. 376-7; Coedès, *États*, pp. 417-18).

³ Giles, nos. 9423; 7159; 8648; Palembang.

⁴ Java, that is Majapahit, whose ruler took Palembang in 1377 (Hall, *History*, p. 85) and, according to the *Sejarah Melayu*, claimed the right of suzerainty until at least 1459 (Brown, p. 82).

⁵ Giles, nos. 7622; 6653; 1144; Malacca.

⁶ Ma Huan writes in general terms, ignoring the independent kingdoms of Pajajaran in western Java, Lampung in southern Sumatra, and perhaps that of Kampar in eastern Sumatra; for which see Majumdar, *Suvarnavdipa*, pt. 1, p. 362; Hall, *History*, p. 85; Meilink-Roelofs, pp. 30, 82-3.

⁷ It is impossible to understand this itinerary, on which Pelliot wrote a long note (Pelliot, 'Voyages', pp. 372-9). Tan chiang (Giles, nos. 10,646; 1245), the Fresh Water estuary must, it seems, be the Sungai Palembang, and P'eng-chia men (Giles, nos. 8887; 1139; 7751) must be Bangka strait (Groeneveldt, p. 197; Feng, p. 16). But ships travelling to Palembang reach Bangka strait before they enter the Sungai Palembang, and not vice versa. The probable explanation is that Ma Huan copied this passage from Wang Ta-yüan, who wrote (f. 13v) 'Chiu chiang. From Tan chiang, you enter P'eng-chia men.' He did not give the direction of the voyage, and his statement would be correct for a voyage from Palembang. Unfortunately Ma Huan makes the statement in connection with a voyage to Palembang.

The Country of Old Haven

this country. The people are very rich and prosperous.¹ The soil of the land is very fertile; a proverb says 'Sow the grain in one season: reap the rice of three seasons'; [and] that is precisely the case in this country.² The territory is not extensive. Many of the men train to fight on water.³ In this place water abounds, while dry land is scarce.

The households of the chiefs all reside in houses built on the dry land of the river banks; apart from the chiefs, the common people all live in houses built on wooden rafts which are tied up to the shore with posts and ropes; when the water rises, the rafts float, [and] they cannot be submerged. If the people wish to live in another place, they take up the posts and move off with their houses, [thus] removing themselves without trouble.

Within the estuary the tide rises imperceptibly twice in a day and night.

As to the customs of the people in this country: their marriage- and funeral-rites, even their language and their drink, food, dress, and other such things, are all the same as in Chao-wa, too.⁴

Some time ago, during the Hung-wu period,⁵ some men from Kuang tung [province], Ch'en Tsu-i and others, [Page 17] fled to this place with their whole households; [Ch'en Tsu-i] set himself up as a chief; he was very wealthy and tyrannical, and whenever a ship belonging to strangers passed by, he immediately robbed them of their valuables.

In the fifth year of the Yung-lo [period],⁶ the court despatched the grand

¹ It seems reasonable to conclude that Palembang, which we are told became 'a nest of Chinese pirates' after 1377, now enjoyed a more orderly government under a Chinese administrator approved by the emperor, as Ma Huan mentions further on.

² This is a local, not a Chinese, proverb (Pelliot, 'Voyages', p. 379).

³ Of their naval warfare, we know only that they relied on boarding, not on ramming, and that their weapons were probably bows and arrows, swords, daggers, and shields (H. G. Q. Wales, *Ancient South-east Asian Warfare* (London, 1952), pp. 44-5).

⁴ Chao-wa is Java. Despite the difference of religion in Buddhist Palembang and Hindu Majapahit, Ma Huan detects what we might call the 'Malaysian way of life'. In considering the customs, we inevitably become involved in the question of Indian cultural influence, about which there exists a wide divergence of opinion. (Culture may be described as 'the way of life of a particular people living together in one place'.) On the one hand it has been thought that 'the indigenous societies were more or less completely Hinduized' (Krom, Coedès, Majumdar, Sastri); on the other hand it has been declared that the underlying pattern of life was unaffected by outside influences, the so-called 'Indianization' being confined to a political élite—'nothing else but a fad' (Schrieke, Van Leur, van der Kroef); Berg, Bosch, and van Lohuizen-De Leeuw took a middle view, namely, that a considerable amount of Indian influence resulted in Javanese culture being fructified by new ideas and in due course produced an Indo-Javanese civilization (J. E. van Lohuizen-De Leeuw, 'The Beginnings of Old-Javanese Historical Literature', *Bijdragen tot de taal-, land-, en Volkenkunde*, vol. CXII (4) (1956), p. 393).

⁵ 1368-98.

⁶ That is, in 1407. All three texts say that it was the fifth year; but that is a mistake; since the emperor's order for Cheng Ho's first expedition was made in the third year,

eunuch Cheng Ho and others commanding the treasure-ships of the great fleet going to the Western Ocean, and they arrived at this place. There was [a person named] Shih Chin-ch'ing who was also a man from Kuang tung [province]; [and] he came and reported the acts of savagery and other such [acts] committed by Ch'en Tsu-i. Ch'en Tsu-i and others were captured alive by the grand eunuch Cheng Ho and taken back to the court; [and] they were put to death.

Subsequently, [the Emperor] bestowed a hat and a girdle upon Shih Chin-ch'ing [and] returned him to Old Haven as principal chief, to rule over the territory. When this man died, his position did not descend to his son; it was his daughter Shih Erh-chieh who became ruler,¹ [and] in every case rewards, punishments, degradations, and promotions all depended on her decision.

The products of the land include such things as the 'crane's crest bird',² yellow *su* incense,³ laka-wood, sinking incense,⁴ *chin-yin* incense,⁵ [and] that is, in 1405, as given in the *T'ien-i ko* edition of Fei Hsin. The two inscriptions state that the expedition went in 1405 and returned in 1407 (Duyvendak, 'Dates', pp. 347, 352-3). The *Ming shih* alleges that the capture of Ch'en Tsu-i took place in 1407 when Cheng Ho was on his return journey (Groeneveldt, p. 195); it may have been this encounter which caused Cheng Ho to return somewhat later than usual, in October (Duyvendak, 'Dates', p. 356).

¹ Apparently Cheng Ho did not visit Palembang on his journey from Java to Semudera during the first expedition of 1405-7, but on the return journey in 1407 he went to Palembang waters and captured Ch'en Tsu-i. According to Ma Huan, in 1407 Shih Chin-ch'ing visited China and was appointed governor of Palembang, and on his death, at a date not specified, he was succeeded by his daughter; but Ma Huan says nothing about the later history. According to the *Ming shih*, in 1424 Shih Chin-ch'ing's son reported to the court of China that his father had died, and the son was then appointed governor. He may have been too young at the time of Ma Huan's visit during the expedition of 1413-15, or he may have been adopted after that date; see Groeneveldt, p. 198 n.

² The rhinoceros hornbill, *Buceros bicornis*, having a large beak with an excrescence on it (Groeneveldt, p. 198, n.; Rockhill, Part II, p. 139, n. 1; Pelliot, 'Voyages', p. 380).

³ A variety of lign-aloes (eagle-wood) (Pelliot, 'Voyages', p. 381, n. 3 from p. 380). *Su* is Giles, no. 10,330. On the various classifications of this aromatic substance see Wheatley, 'Commodities', under 'Gharuwood', p. 69.

⁴ *Ch'en hsiang* (Giles, nos. 649; 4256). This is the true eagle-wood (Pelliot, 'Voyages', p. 386). Formed in a tree of soft and light wood, this hard and heavy black concretion sank in water; and Chou Ch'ü-fei (ch. 5, f. 10v) described how fraudulent Tongkingese traders made substitutes sink by steeping them in salt, or introducing pieces of lead. See also Wheatley, 'Commodities', under 'Gharuwood', p. 69.

⁵ Giles, nos. 2032; 13,253; a transliteration of Malay *kemenyan*; gum benjamin or benzoin (Wheatley, 'Commodities', p. 56; O. W. Wolters, 'The *Po-ssu* Pine Trees', *Bulletin of the School of Oriental and African Studies*, vol. XXIII, pt. 2 (1960), p. 336). Pelliot thought that Ma Huan's *chin-yin* incense was probably sweet benjamin, and he identified benjoin (benzoin) with the substance called by the Chinese 'An-hsi [Parthian, Persian] aromatic' (Pelliot, 'Voyages', p. 382); but Wheatley and Wolters in the

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yellow wax.¹ *Chin-yin* incense is not produced either in the Central Country or in any other country; this incense resembles the black glue used by silversmiths for inlaying silver articles; inside there is a lump like a kind of white wax in the middle; superior qualities have much white and little black, inferior qualities have much black and little white; [and] when you burn this incense, the scent is very pungent and irritates the nose; the western foreigners and the So-li people are very fond of this incense.

The 'crane's crest bird' is as large as a duck, with black feathers, long neck, and sharp beak; the bone which covers the head is more than a *ts'un*² thick; on the outside it is red, on the inside it looks like beautiful yellow wax; it is very [*Page 18*] lovely; they call it 'crane's crest'; [and] it is suitable for making such things as daggers, scabbards, and archers' rings.³

[The land] also produces a kind of 'fire fowl' as large as a 'fairy crane',⁴ with a round body and a tufted neck which is longer than a crane's neck; on its head it has a soft red crest like a red hat in appearance, and it has two [similar] pieces growing on its neck; the beak is pointed; and all over its body the feathers are sparse and long like a goat's hair, and blue in colour; the feet are long, and iron-black; the claws are very sharp, and can rip open a man's stomach, [and] his bowels protrude and then he dies. [The bird] likes eating burning coals,⁵ hence the name 'fire fowl'. [Even] if you take a stick and break it to pieces [on the bird], you cannot kill it.⁶

The mountains also produce a kind of 'mysterious' animal called the 'mysterious deer'; it is like a large pig and about three *ch'ih* high;⁷ [the body] is divided into a front half which is black, and a back portion with white patterned hair, uniform in colour, short, and attractive; its snout is like a pig's snout, [but] is not flat; the four hooves, too, are like a pig's hooves, but [the hoof] has three digits; it eats only plants and trees, [and] eats no flesh food.⁸ Oxen, goats, pigs, dogs, fowls, ducks, and such things as

articles above quoted have demonstrated that after the eighth century the name 'An-hsi aromatic' was applied to the Sumatran benzoin, which is the resinous product of trees of the genus *Styrax*.

¹ On beeswax see Wheatley, 'Commodities', p. 125.

² The equivalent of 1 *ts'un* was 1.2 inches.

³ *Chi chi* (Giles, nos. 815; 787); not explained in the dictionaries. The editor is indebted to Professor H. H. Dubs for the explanation that these rings were originally used by archers, but later came to be made into decorations.

⁴ The white Manchurian crane, *Grus viridirostris*.

⁵ *Fu t'an*; the first character is not in the dictionaries; the second character is Giles, no. 10,650; the present translation is that of Groeneveldt (p. 199), on which no comment is made by Duyvendak or Pelliot.

⁶ The cassowary; it must have been brought from the island of Ceram in the Moluccas.

⁷ About 37 inches.

⁸ The tapir, a native of eastern Sumatra (Groeneveldt, p. 199 n.).

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vegetables, gourds, and fruits, identical with those of Chao-wa¹—all these they have.

Many of the people there like gambling games—such things as ‘catch-the-tortoise’,² *wei-ch’i*,³ and cock-fighting; [and] in all these games they gamble for money.

For trading in the markets they, too, use the copper coins of the Central Country, and they also use such things as cloth and silk.

The ruler of this country, too, frequently takes local products and sends them as tribute to our court; [and] he has continued to do so until the present day.⁴

THE COUNTRY OF HSIEN LO⁵

[SIAM, THAILAND]

[Page 19] Travelling from Chan city⁶ towards the south-west⁷ for seven days and nights with a fair wind, the ship comes to the estuary at New Strait Tower⁸ and enters the anchorage; then you reach the capital.

¹ Java.

² Unexplained. A Chinese game called ‘*kwai p’ai*’, ‘tortoise tablets’, played with 32 dominoes, is mentioned by S. Culin, *Games of the Orient* (Rutland, 1895, reprinted 1958), p. 109.

³ *Yi ch’i* (Giles, nos. 13,176; 1031), to play *wei ch’i*, the surrounding game or Game of War, in which the players endeavour to appropriate territory with their black or white pips on a square board of 324 squares. The game is described by H. J. R. Murray, *A History of Board Games* (Oxford, 1952), pp. 89–92.

⁴ Presumably Ma Huan refers to the Chinese ruler, Shih Chi-sun, whose appointment, according to the *Ming shih*, was approved by the emperor in 1424. Curiously enough, no mention of tribute from Palembang appears in the ‘principal annals’ of the *Ming shih* dealing with this period, though in the account of San Fo-ch’i (Sri Vijaya) it is said that the ruler sent tribute in 1425, and after that at rarer intervals (Groeneveldt, p. 196).

⁵ The kingdom of Hsien (Giles, no. 4479) and Lo (Giles, no. 7291); Thailand, until recently known to Europeans as Siam; called by the Chinese ‘Hsien Lo-hu’ (contracted to ‘Hsien Lo’) after the Hsien (Syam) people of Sukhot’ai became united with the people of Lo-hu (Lavo, Lopburi) in 1349; at this time a powerful and important kingdom which had extended its control over most of the Malay peninsula, including Tumasik (Old Singapore). For Thailand see Hsiang Ta, *Kung Chen*, pp. 13–14; Fei Hsin, ch. 1, pp. 11–13 (Rockhill, Part II, pp. 104–5); *Ming shih*, p. 7915, row 3; Majumdar, *Suvarnavipra*, pt. 1, pp. 381–2, 394–5; W. Blanchard, *Thailand* (New Haven, Conn., 1957), p. 351; Coedès, *États*, pp. 348, 401–2, 442; Hall, *History*, pp. 164–8.

⁶ Champa, Central Vietnam, of which the principal port was Qui Nhon.

⁷ This direction is most misleading, since, according to the sailing instructions, Chinese ships sailed south, then south-west, then north-west, then north.

⁸ ‘Hsin men t’ai’ (Giles, nos. 4574; 7751; 10,577); this is also the reading of Wang Ta-yüan and Kung Chen; K, however, has ‘Lung men wu’ (Giles, nos. 7479; 7751; 12,737), ‘Dragon Gate House’. The sailing directions indicate that the estuary in question was that of Maenam Mae Klong (Meklong river), about 38 miles west of Maenam Chao Phraya (Bangkok river).

The Country of Hsien lo

The country is a thousand *li* in circumference, the outer mountains [being] steep and rugged, [and] the inner land wet and swampy. The soil is barren and little of it is suitable for cultivation.¹ The climate varies—sometimes cold, sometimes hot.

The house in which the king resides is rather elegant, neat, and clean.² The houses of the populace are constructed in storeyed form; in the upper [part of the house] they do not join planks together [to make a floor], but they use the wood of the areca-palm, which they cleave into strips resembling bamboo splits; [these strips] are laid close together and bound very securely with rattans; on [this platform] they spread rattan mats and bamboo matting, and on these they do all their sitting, sleeping, eating, and resting.³

As to the king's dress: he uses a white cloth to wind round his head; on the upper [part of his body] he wears no garment; [and] round the lower [part he wears] a silk-embroidered kerchief, adding a waist-band of brocaded silk-gauze. When going about he mounts an elephant or else rides in a sedan-chair, while a man holds [over him] a gold-handled umbrella made of *chiao-chang* leaves,⁴ [which is] very elegant. The king is a man of the So-li race,⁵ and a firm believer in the Buddhist⁶ religion.

In this country the people who become priests or become nuns are exceedingly numerous; the habit of the priests and nuns is somewhat the same as in the Central Country; and they, too, live in nunneries and monasteries, fasting and doing penance.⁷

¹ Although supported by Kung Chen, Ma Huan is almost certainly wrong; in contrast, Fei Hsin says that the fields were fertile. Annual floods convert the central region into a very fertile plain, and Thailand can feed its own people and export over a million tons of rice a year; see Wickizer, p. 251; Blanchard, pp. 304, 307, 357.

² The capital was then at Ayutthaya, about 35 miles north of the modern Bangkok on the Maenam Chao Phraya. The royal palace, built by King Ramadhipati (Rama Thibodi) in 1350, is to a great extent in ruins. In Ma Huan's time the rulers were Int'araja (1408-24) and Boromoraja II (1424-48); see Hall, p. 886.

³ On the houses of the people, see W. A. Graham, *Siam* (London, 1924), vol. 1, p. 155, and vol. II, p. 191; Blanchard, pp. 368-9.

⁴ Cham *kajan*, Malay and Javanese *kajang*, a waterproof matting made from the leaves of screw-pines.

⁵ Probably Ma Huan means merely that the king was of Indian descent.

⁶ Shih, the first syllable of the name 'Sakyamuni' Buddha. The people of Thailand received their religion, art, science, and writing originally from India (H. G. Q. Wales, *Ancient Siamese Government and Administration* (London, 1934), p. 29); for a succinct account of Indian religious influences on Thailand see the same author's *Siamese State Ceremonies* (London, 1931), p. 19; Hinayana (Theravada) Buddhism was accepted as the national religion in the thirteenth century and was firmly established by the end of the fourteenth (Wales, *Government*, p. 238; Blanchard, p. 90). On the religion of the Thai see Blanchard, pp. 11-13, and chapter 5, pp. 87-118.

⁷ Even now every young man takes the vows and dons the yellow robe of a Buddhist monk for at least a few weeks; but the permanent priests regard them as 'fly-by-nights' (Wales, *Ceremonies*, p. 25; Blanchard, pp. 12, 402).

It is their custom that all affairs are managed by their wives; both the king of the country and the common people, if they have matters which require thought and deliberation—punishments light and heavy, all trading transactions great and small—they all follow the decisions of their wives, [for] the mental capacity of the wives certainly exceeds that of the men.

If a married woman is very intimate with one of our men from the Central Country, wine and food are provided, and they drink and sit and sleep together. The husband is quite calm and takes no exception to it; indeed he says 'My wife is beautiful and the man from the Central Country is delighted with her'.¹ [*Page 20*] The men dress the hair in a chignon, and use a white head-cloth to bind round the head [and] on the body they wear a long gown. The women also pin up the hair in a chignon, and wear a long gown.²

When a man has attained his twentieth year, they take the skin which surrounds the *membrum virile*, and with a fine knife shaped like [the leaf³ of] an onion they open it up and insert a dozen tin beads inside the skin; [then] they close it up and protect it with medicinal herbs. The man waits till the opening of the wound is healed; then he goes out and walks about. The [beads] look like a cluster of grapes. There is indeed a class of men who arrange this operation; they specialize in inserting and soldering these beads for people; [and] they do it as a profession.

If it is the king of the country or a great chief or a wealthy man [who has the operation], then they use gold to make hollow beads, inside which a grain of sand is placed, and they are inserted [in the *membrum virile*]; [when the man] walks about, they make a tinkling sound, and this is regarded as beautiful. The men who have no beads inserted are people of the lower classes.⁴ This is a most curious thing.

¹ The *Ming shih* uses almost the same language (p. 7916, row 1), hence the editors must have read Ma Huan's original version and not Chang Sheng's *rifacimento* (Duyvendak, *Ma Huan*, p. 39, n. 1).

² It would seem that in Ma Huan's time the Thai people whom he observed did not bring back the sarong between the legs and tuck it in at the belt-line behind, as they wear the *pha-nun* (*panung*) at the present day. On Thai dress see Blanchard, p. 368. The wearing of the chignon is confirmed by Kung Chen, Fei Hsin (Rockhill, Part II, p. 104), and Huang Sheng-tseng (ch. 2, f. 2); on the other hand Blanchard (p. 372) stated that Thai women have always cropped their hair very short, but perhaps he spoke of more recent times.

³ K has 'leaf'.

⁴ Ma Huan gives the most detailed Chinese account of this extraordinary custom. Wang Ta-yüan and Fei Hsin say nothing of the matter in Thailand. Kung Chen gives the inadequate description 'All males, high and low alike, use beads of gold or silver which are inlaid in the *membrum virile* as an adornment.' Huang Sheng-tseng (ch. 2, f. 2) merely makes the unintelligible remark 'When the nobles are twenty years old, they use inserted sand.' The custom is noticed by several European writers; for instance, Conti mentioned its occurrence in Ava, Barbosa, Garcia de Resende, Camoens, Linschoten, and Mandelslo in Pegu, Pigafetta in Java (in error for Pegu), and Galvão in

The Country of Hsien lo

When men and women marry, they first of all invite a Buddhist priest to escort the groom to the woman's family-house; and then they direct the Buddhist priest to take some of the maiden's virginal blood and dab it on the man's forehead; this [ceremony] is called *li shih*.¹ After that the marriage is consummated. Three days later they again invite a Buddhist priest and the relatives and friends, and, bearing areca-nut and a decorated boat and other such things, they escort the husband and wife back to the man's family-house, where they prepare wine, play music, and entertain the relatives and friends.²

As to their funeral-rites: whenever a man of wealth and standing dies, they take quicksilver and pour it inside the abdomen [of the corpse] and bury it; when one of the poorer classes dies, they carry the corpse to the wilds by the sea-side, and place it on the edge of the sand; subsequently golden-coloured birds as large as geese—more than thirty, or fifty, of them—gather in flight [Page 21] in the sky; they descend, take the flesh of the corpse, devour it completely, and fly away; [and] the people of the [dead man's] family weep over the bones which remain, then cast them away in the water and return home. They call this 'bird-burial'. They also invite a Buddhist priest to celebrate a mass, chant liturgies, and worship Buddha, and that is all.³

When you travel something over two hundred *li*⁴ to the north-west from the capital, there is a market-town called Upper Water,⁵ whence you can go

Thailand; see M. L. Dames, *The Book of Duarte Barbosa*, vol. II (London, 1921), p. 154; Cortesão, *The Suma Oriental of Tomé Pires*, vol. I, pp. 102, 104; Penzer, *The Travels of Marco Polo*, p. 260. Frampton omitted the topic in his translation of Conti, and Phillips in his translation of Ma Huan.

¹ On this custom in Thailand and Cambodia see Duyvendak's note (Duyvendak, *Ma Huan*, p. 40); Kung Chen states that the forehead of both groom and bride was dabbed, and considers the custom very laughable; the subject is discussed at length by H. Iwai, 'The Buddhist Priest and the Ceremony of attaining Womanhood during the Yüan Dynasty', *Memoirs of the Research Department of the Toyo Bunko*, no. VII (1935), pp. 105–61. *Li shih* (Giles, nos. 6885; 9905) means 'profitable business'; Iwai has considered the origin and use of the expression in the present context; he concludes that the ceremony was called *li shih* because this phrase was applied to gifts made on the occasion of a wedding in South China (Iwai, pp. 137–42). For pre-marital formalities in modern times see Blanchard, pp. 434–5.

² At the present day no religious rites accompany marriage in Thailand, though the bonzes are invited to the feast (Wales, *Ceremonies*, p. 48); a marriage may be sealed by a relatively elaborate ritual, or it may be announced by the young couple beginning to live together (Blanchard, p. 423).

³ Phillips refers to a custom of feeding flesh to the vultures (G. Phillips, 'The Seaports of India and Ceylon', *Journal of the China Branch of the Royal Asiatic Society*, vol. XXI (1886), p. 36, n.); the normal means of disposing of the dead is now by cremation, which is almost entirely Buddhist (Wales, 'Ceremonies', p. 137); for the elaborate ceremonies see Blanchard, pp. 437–8.

⁴ About 67 miles.

⁵ Shang shui (Giles, nos. 9729; 10,128); if Ma Huan's distance is roughly correct, this must be Lopburi, approximately 27 miles north of Ayutthaya; C has 100 *li*,

through into Yün nan [province] by a back-entrance. In this place there are five or six hundred families of foreigners; all kinds of foreign goods are for sale; red *ma-ssu-k'en-ti*¹ stones are sold in great numbers here; this stone is inferior to the red *ya-ku*, [and] its brightness resembles that of a pomegranate seed. When the treasure-ships of the Central Country come to Hsien Lo,² [our men] also take small boats and go to trade [at Upper Water].

The country produces yellow *su* incense,³ Lo-ho *su* incense,⁴ laka-wood, sinking incense,⁵ rose-wood, cardamoms,⁶ chaulmoogra seeds,⁷ dragon's blood,⁸ liana nodes,⁹ sapan-wood, 'flower tin',¹⁰ elephants' teeth, king-about 33 miles, which would be more appropriate. Pelliot thought that Ma Huan ascended the river to 'Upper Water' (Pelliot, 'Voyages', p. 384).

¹ Giles, nos. 7576; 10,266; 5979; 10,978; an unexplained word which Pelliot supposed was derived from some such Persian original as *mazgandi* (Pelliot, 'Voyages', p. 384). It was a variegated, lustreless stone, dug from the same mines as the 'red *yaku*', that is, Arabic and Persian *yakut*, ruby and corundum (T'ao Tsung-i, *Cho-keng lu*, 'Records [written] while the plough rests' (Chiang Yin, 1366), ch. 7, f. 5 v; Bretschneider, vol. 1, p. 174); it must be identical with the *ma-k'en-ti*, which is said to be a garnet (B. E. Read and C. Pak, *A Compendium of Minerals and Stones used in Chinese Medicine* (Peking, 1936), p. 22); garnets have been found in the northern district of Thailand.

² Thailand.

³ A variety of lign-aloes.

⁴ A variety of lign-aloes. Lo-ho (Giles, nos. 7291; 3932) is the country of Lvo, Lavo, or Lahot, modern Lopburi; see Hirth and Rockhill, p. 56, n. 10; Pelliot, 'Voyages', p. 385.

⁵ A variety of lign-aloes, 'the true eagle-wood' (Pelliot, 'Voyages', p. 386).

⁶ On cardamoms see Wheatley, 'Commodities', pp. 87-8.

⁷ *Ta feng tzu* (Giles, nos. 10,470; 3554; 12,317), the seeds of *Hydnocarpus anthelmintica*; the identification with *Gynocardia odorata*, as in Giles and Shu Hsin-Ch'eng, is wrong (Read, *Plants*, p. 71). The discovery of chaulmoogra oil for the treatment of leprosy had been made by the fourteenth century (Reischauer and Fairbank, p. 212).

⁸ *Hsüeh chieh* (Giles, nos. 4847; 1459), 'blood coagulate'; Schafer would derive *chieh* from an early Malay word allied to the modern Malay *getah*, meaning 'sap, resin, gum'. Since the true dragon's blood was a product of the Arab countries, Pelliot thought that Ma Huan probably refers to 'false dragon's blood', and this, according to Schafer followed by Wheatley, was probably gum-kino, a red gum produced by the rosewood *Pterocarpus indicus*. However, Ma Huan may allude to another resin which today passes under the name of dragon's blood; this is obtained from palms of the genus *Daemonorhops* and certain other genera. See Pelliot, 'Voyages', pp. 386-9; Schafer, 'Rosewood', pp. 134-5; Wheatley, 'Commodities', under 'Dragon's blood', pp. 109-11.

⁹ *T'eng chieh* (Giles, nos. 10,889; 1470), in C and S. Lianas or rattans are the stems of climbing plants of the genus *Calamus* and certain other genera. Pelliot thought that Ma Huan might have intended to refer to a 'false dragon's blood' made with seeds of the liana *Calamus draco* (Pelliot, 'Voyages', p. 388). For *t'eng chieh*, K, not noticed by Pelliot, has *t'eng huang*, 'gamboge'. On rattans see Wheatley, 'Commodities', under 'Rattans', pp. 107-8.

¹⁰ Unexplained: Rockhill (Part II, p. 117, n. 1) suggested that it might mean tin in certain forms used in trade. The probable explanation is that the Chinese expression is a translation of the Malay phrase *timah sari*, 'flower tin', the name given to tin, in contrast with the phrase *timah hitam*, 'black tin', the name given to lead. On tin see Wheatley, 'Commodities', p. 115.

The Country of Hsien lo

fishers' feathers,¹ and other such things. This sapan-wood is as abundant as firewood, and for colour decidedly superior to the product of other countries. The unusual animals are white elephants, lions,² cats, and white mice. The varieties of vegetables are the same as in Chan city. For wines they have rice wine and coconut wine; both are distilled spirits; [and] the price is very cheap. Oxen, goats, fowls, ducks, and other such domestic animals—all these they have.

The language of the country somewhat resembles the local patois as pronounced in Kuang tung [province].³ [Page 22] The customs of the people are noisy and licentious. They like to practise fighting on water, [and] their king constantly despatches his commanders to subject neighbouring countries.⁴

In trading they employ cowries⁵ as money for current use; optionally, gold, silver, and copper coins may all be used; but the copper coins of the successive dynasties in the Central Country are not in use.⁶

The king regularly sends chiefs who take sapan-wood, laka-wood, and other such valuable things, and bring them as tribute to the Central Country.⁷

¹ On kingfishers' feathers see Wheatley, 'Commodities', p. 99.

² If Ma Huan really means lions, they must have been imported from elsewhere. But, like Polo, he may have meant tigers.

³ The Thai language has many characteristics similar to those of Chinese, and linguists classify it as belonging to the Chinese-Thai branch of the Sino-Tibetan family; the script, however, is aligned with early Mon or Khmer scripts of Indian origin (Blanchard, pp. 75, 77).

⁴ From the earliest days of their advance southwards from southern China the Thai were organized for war (Wales, *Government*, p. 135); 'Thai rulers often tried to bring neighbouring states into vassalage and to remove their populations as slaves' (Blanchard, p. 232); there were no specialized naval units, but many war-barges manned by a crew of civilians and by soldiers as fighting men (Wales, *Government*, p. 142). After consolidating their position in Thailand, they made conquests in the Malay peninsula at least as far as Nakhon (Ligor) about 1294 (Hall, *History*, p. 163); they conquered Pasai or Pase (Lho Seumawe district) about the beginning of the fourteenth century (Brown, p. 45); and they had subjected Tumasik (Old Singapore) before 1389 (Sir R. Winstedt, *A History of Malaya* (Singapore, 1962), p. 46). On ancient Thai warfare see Wales, *Warfare*, pp. 115-90.

⁵ *Hai pa*, sea-*pa*; the second character is not in the dictionaries, and the character given in Shiu Hsin-Cheng is not in Giles' dictionary, but it may be written *pa*, Giles, no. 8521. Ma Huan later states that cowries were imported from the Maldive islands.

⁶ The texts are in a most unsatisfactory condition; S says that Chinese copper coins were not used in Thailand, and K that they were always used, while C is silent. Kung Chen and Fei Hsin state that cowries were used in place of money, while the *Ming shih* (p. 7916, row 2) records that the people used cowries and makes no mention of money.

⁷ Until the nineteenth century China always looked upon Thailand as one of its vassals; some modern writers (Schrieke, Spinks) accept this view, but others (Wood, Wales) deny that Thailand ever admitted Chinese suzerainty; the astute 'Thai kings paid tribute to China for centuries and allowed the Chinese to regard Thailand as a formal tributary; at the same time the Thai thought of the tribute as gifts freely and generously given' (Blanchard, p. 230).

Ying-yai sheng-lan chiao-chu

THE COUNTRY OF MAN-LA-CHIA¹

[MALACCA]

From Chan City² you go due south, and after travelling for eight days with a fair wind the ship comes to Lung ya strait;³ after entering the strait you travel west;⁴ [and] you can reach [this place] in two days.

Formerly this place was not designated a 'country'; [and] because the sea [hereabouts] was named 'Five Islands', [the place] was in consequence named 'Five Islands'.⁵ There was no king of the country; [and] it was controlled only by a chief. This territory was subordinate to the jurisdiction of Hsien Lo;⁶ it paid an annual tribute of forty *liang*⁷ of gold; [and] if it were not [to pay], then Hsien Lo would send men to attack it.⁸

In the seventh year of the Yung-lo [period],⁹ [the cyclic year] *chi-ch'ou*, the Emperor ordered the principal envoy the grand eunuch Cheng Ho and others to assume command [of the treasure-ships], and to take the imperial edicts and to bestow upon this chief two silver seals, a hat, a girdle and a robe. [Cheng Ho] set up a stone tablet and raised [the place] to a city; [and]

¹ Giles, nos. 7622; 6653; 1144; Malacca, port on the west coast of the Malay peninsula, 2° 12' N, 102° 15' E; in Ma Huan's time politically unimportant, but of considerable, and rapidly increasing, importance as an entrepôt of international trade, where for the first time the commerce of the world's major trade-route, between Venice and the Molucca islands, was concentrated in one central point according to a definite plan. For Malacca see Hsiang Ta, *Kung Chen*, pp. 14-17; Fei Hsin, ch. 1, pp. 19-21 (Rockhill, Part II, pp. 117-18); *Ming shih*, p. 7918, row 1 (Groeneveldt, pp. 248-54); Wheatley, *Khersonese*, pp. 306-20; Winstedt, *History*, pp. 44-50; Meilink-Roelofs, pp. 27-35; Coedès, *États*, pp. 441-3; Hall, *History*, pp. 190-8.

² Champa; Central Vietnam.

³ Giles, nos. 7479; 12,797; 7751. Lung ya strait appears to be that part of Singapore Main strait lying between Pulau Satumu or Coney islet (Raffles lighthouse) on the north and the chain of islets and reefs (Poulo Nipa, Kent rocks, Poulo Pelampong, Poulo Takong besar, Helen Mar reef, and Buffalo rock) which form the southern side of Singapore Main strait. See Appendix 4, The location of Lung ya strait.

⁴ The true direction is north-west.

⁵ K seems better, 'Because the sea had five islands, [the place] was in consequence called Five Islands.' The Five Islands are the Water islands, about 6½ miles south-east of Malacca pier.

⁶ Thailand.

⁷ The equivalent of 40 *liang* was 47.96 ounces troy weight. All three texts have '40 *liang*'; Chang Sheng's reading of '5000 *liang*' is very wide of the mark; see Pelliot, 'Voyages', p. 389.

⁸ Thailand still controlled the east coast of the Malay peninsula down to, and including, Singapore; it remained the inveterate enemy of Malacca.

⁹ That is, 1409. Both the *Shih-lu* and the *Ming shih* give the date as 1408, and this was accepted by Pelliot; but Duyvendak has demonstrated that the date given by Ma Huan is correct; see Pelliot, 'Voyages', pp. 285-6, and Duyvendak, 'Dates', p. 366.

The Country of Man-la-chia

it was subsequently called the 'country of Man-la-chia'.¹ Thereafter Hsien lo did not dare to invade it.²

The chief, having received the favour of being made king,³ conducted his wife and son,⁴ and went to the court at the capital⁵ to return thanks and to present tribute of local products. The court also granted him a sea-going ship, so that he might return to his country and protect his land.

On the south-east of the country is [Page 23] the great sea; on the north-west the sea-shore adjoins the mountains.⁶ All is sandy, saltish land. The climate is hot by day, cold by night. The fields are infertile and the crops poor; [and] the people seldom practise agriculture.⁷

There is one large river whose waters flow down past the front of the king's residence to enter the sea;⁸ over the river the king has constructed a wooden bridge, on which are built more than twenty bridge-pavilions, [and] all the trading in every article takes place on this [bridge].⁹

¹ According to the *Ming shih* (p. 7918, row 1), in 1405 the emperor appointed the chief 'to be king of the country (*kuo*) of Malacca'; this implies that the emperor recognized the *ti*, 'territory', as a *kuo*, 'country', having a certain degree of political organization. On his third expedition, Cheng Ho would have reached Malacca in 1410, and he then raised the town in status to a *ch'eng*, 'city'.

² Chang Sheng's statement (Rockhill, Part II, p. 114) that 'it ceased to be a dependency of Hsien Lo' does not appear in Ma Huan's original version, or in Kung Chen or Fei Hsin. Malacca did not finally repudiate its vassalage to Thailand until after 1488 (Winstedt, *History*, p. 58). But Thailand still claimed suzerainty over the whole peninsula when the Portuguese captured Malacca in 1511, and the four northern states of Malaya, that is, Kelantan, Trengganu, Kedah, and Perlis, acknowledged the supremacy of Thailand until 1909 (Winstedt, *History*, p. 237).

³ The chief was the founder and first king of Malacca; in the *Ming shih* he is called 'Pai-li-mi-su-la', that is, Permicura (Parameswara); he took the title of Sultan Iskandar Shah (Brown, p. 52) about 1413.

⁴ Or 'wives and sons'; the Chinese text is imprecise.

⁵ They would have returned on the ship of Cheng Ho, who reached Nanking on 6 July 1411 (Duyvendak, 'Dates', p. 361).

⁶ On the contrary, the sea is on the south-west, and the mountains on the north-east. Kung Chen makes the same mistake. Groeneveldt (p. 243) translated 'The country is bordered on the west by the ocean, and on the east and north by high mountains'; an examination of Groeneveldt's text at the British Museum discloses that, as Pelliot suspected, Groeneveldt has tacitly altered Ma Huan's statement in such a way as to conform with geographical facts (Pelliot, 'Voyages', p. 390).

⁷ It takes several years to develop an organized system of irrigated rice-fields. The earliest settlers must have lived largely on sago-flour, tubers, and fruits. Rice was imported from Pedir and Pasai in Sumatra; see Winstedt, *History*, pp. 48-9.

⁸ The Malacca river.

⁹ The bridge of trading-booths is shown on several old drawings; for instance, see the *Journal of the Malayan Branch of the Royal Asiatic Society*, vol. XXIX (1956), pp. 162, 166. It became well known in the Far East, and attracted merchants from east and west; see Winstedt, *History*, p. 49. Foreign merchants resided in the town from the earliest years (Wheatley, *Khersonese*, p. 312).

Ying-yai sheng-lan chiao-chu

The king of the country and the people of the country all follow the Muslim religion, fasting, doing penance, and chanting liturgies.¹

As to the king's dress: he uses a fine white foreign cloth to wind round his head; on his body he wears a long garment of fine-patterned blue cloth, fashioned like a robe; [and] on his feet he wears leather shoes. When he goes about, he rides in a sedan-chair.

The men of the country wrap the head with a square kerchief. The women dress the hair in a chignon behind the head. Their bodies are [only] slightly dark.² Round the lower part they wrap a white cloth kerchief;³ [and] on the upper part they wear a short jacket of coloured cloth.

Their customs are pure and simple. Their dwellings are constructed like storeyed pavilions; in the upper [part of the house] they do not lay down a plank [flooring]; but at a point about four *ch'ih*⁴ high [from the ground] they take strips formed by splitting a coconut tree, and lay them down at spaced intervals on [supports], binding them securely with rattans—just as a goat-shed [is made]; [the strips] are arranged in an orderly manner, with a bed serving as a couch on which they sit cross-legged; [and] all their drinking, sleeping and cooking is done up there.⁵

The men mostly practise fishing for a livelihood; they use a dug-out boat made from a single tree-trunk, and drift on the sea to get the fish.

The land produces such things as yellow *su* incense,⁶ ebony, *ta-ma-erh*⁷ incense, and 'flower tin'. *Ta-ma-erh* incense is in origin the gum from a species of tree; it runs out into the ground; [and] when they dig it up, it

¹ Sultan Iskandar Shah was succeeded by his son Raja Tengah who assumed the title of Sri Maharaja (1424-44). Sultan Iskandar Shah must have embraced the Muslim faith about 1413, since he had been converted before he assumed the style of Megat Iskandar Shah (Winstedt, *History*, p. 49), and we find that style under the year 1414 in the *Ming shih* (p. 7918, row 1; reading *Mu-wa Sa-kan-ti-erh Sha* for *Mu-kan Sa-yü-ti-erh Sha*, on which see Pelliot, 'Encore', p. 220). The conversion of the people took place 'in the course of time'. On the religion of the Malays and on the survival of pre-Muslim Hindu elements, see N. Ginsburg and C. F. Roberts, *Malaya* (Seattle, 1958), pp. 227-33, and p. 317, respectively.

² Compared with certain other Asian peoples, for instance, the Chams, who were 'quite black'.

³ The standard *kain sarong* is a piece of cloth approximately 42 inches in width and 2 yards in circumference and is worn wrapped around the waist.

⁴ About 49 inches.

⁵ The elements of the basic Malay house have been investigated by R. N. Hilton, 'The Basic Malay House', *Journal of the Malayan Branch of the Royal Asiatic Society*, vol. XXIX (1956), pp. 134-55. See also Ginsburg, pp. 81-2.

⁶ A kind of lign-aloes.

⁷ Giles, nos. 10,494; 7591; 3333; 'dammar'; Malay *damar*, an exudation from various coniferous and dipterocarpous trees; see Yule and Burnell, under 'Dammer', p. 294b. The substance is still obtained and used in the way described by Ma Huan (Groeneveldt, p. 244, n.). See Wheatley, 'Commodities', pp. 92-3.

The Country of Man-la-chia

looks like pine-resin or pitch. When you set fire to it, it flares up;¹ [and] the foreigners all use this substance and set it alight [*Page 24*] to serve as a lamp. When they have finished building a foreign ship, they take some of this substance, melt it, and smear it in the seams, so that the water cannot get in; it is very effective. Many of the people in that land collect this substance to transport it to other countries for sale. The sort of [*ta-ma-erh*] which is bright, clear and good, resembles golden amber; its name is *sun-tu-lu-ssu*.² The foreigners make it up into cap-buttons and sell them. The 'water-amber' of the present day is this substance.

As to 'flower tin': there are two tin-areas in the mountain-valleys;³ [and] the king appoints chiefs to control them. Men are sent to wash [for the ore] in a sieve and to cook it. [The tin] is cast into blocks the shape of a *tou*-measure⁴—to make small blocks which are handed in to the officials. Each block weighs one *chin* eight *liang*, sometimes one *chin* four *liang*,⁵ on our official steelyard. Every ten blocks are tied up with rattan to make a small bundle; [and] forty blocks make one large bundle. In trading transactions they all take this tin for current use.

The speech of the people in this country, and their writings, and marriage-rites⁶ are somewhat the same as in Chao-wa.

In the mountain-wilds there is a kind of tree called the *sha-ku*⁷ tree. The

¹ *Cho* (Giles, no. 2394), 'to place'; R. H. Mathews, *Chinese-English Dictionary* (Cambridge, Mass., 1945), no. 1259, explains that it is an alternative form of *chao* (Giles, no. 481), 'to set fire to', 'to blaze up'; this last character is not in Shu Hsin-Ch'eng.

² Probably Arab-Persian *sindarus*, 'gum sandarac'; the word is perhaps connected with *chandruṣ* (*chandraś*), 'copal'; see Pelliot, 'Voyages', p. 391.

³ Fei Hsin says that the tin came from one mountain in Malacca territory; compare Rockhill, Part II, p. 117. The 'district . . . called Shu-sha' mentioned by Rockhill (p. 116) is a figment of the imagination; the text translated by Rockhill is corrupt; Ma Huan is describing the tree (*shu*) called *sha* [*-ku*], that is, sago.

⁴ The *tou*, so-called 'peck', then contained 2.36 gallons; the blocks, although cast in the shape of this measure, must have been considerably smaller.

⁵ That is, 1 pound 15 ounces, or sometimes 1 pound 10 ounces, avoirdupois.

⁶ S and K add 'funeral-rites'. Ma Huan notes the similarity of certain customs in Muslim Malacca, Buddhist Palembang, and Hindu Majapahit; but Islam was not yet completely prevalent in Malacca, and even in 1537 both rich and poor, instead of burying their dead, still adhered to the Hindu custom of burning them (Groeneveldt, p. 248). The Malay and Javanese languages belong to the western branch of the Malayo-Polynesian family, about half the vocabulary of the two languages being approximately the same. The pre-Islamic literature of Malacca consisted mainly of Hindu epics and Javanese tales. Before adopting the Muslim marriage-law, the Malays followed the most usual form of Hindu marriage, that is, the purchase of a girl from her parents.

On the above topics see Sir R. Winstedt, *The Malays* (London, 1950), pp. 16, 29, 45-6, 139-44.

⁷ Giles, nos. 9624; 6222; Malay *sagu*, the farinaceous pith taken from the stem of several species of a particular kind of palm (Yule and Burnell, p. 780b).

people of the countryside take the skin of this article and, as is done with *ko*¹ root in the Central Country, they pound and soak it; after it has settled and been strained, the powder is made into balls the size of lentils; these are sun-dried² and sold: they are called '*sha-ku* rice'; [and] they can serve as rice for consumption.

On the islands in the sea along the coast there grows a variety of aquatic plant called '*chiao-chang* leaves';³ they are long—like knives or reeds—and resemble the [shoots of the] '*bitter bamboo*',⁴ with their thick rind and flexible nature. [The plant] bears fruit like a litchi⁵ in appearance and as large as fowls' eggs; the people take these fruits and make a fermented wine called '*chiao-chang* wine';⁶ when drunk, it can intoxicate people, too. The people of the countryside [Page 25] take these leaves and interweave them with bamboo [to make] fine matting; [the pieces]⁷ are only two *ch'ih* broad and more than one *chang* long;⁸ they are sold as mats.

For fruits, they have such things as sugar-cane, bananas, jack-fruit, and wild litchi. For vegetables: onions, ginger, garlic, mustard, gourd-melons⁹ and water-melons—all these they have. Oxen, goats, fowls, and ducks, although they have them, are not plentiful; prices are very dear; [and] one of their water-buffaloes costs more than one *chin*¹⁰ of silver. Donkeys and horses are entirely absent.

In the waters at the edge of the sea there are always iguana-dragons¹¹ which injure people; these dragons are three or four *ch'ih* in height,¹² and

¹ Giles, no. 6069. A creeping edible bean, identified with *Pachyrhizus Thunbergianus* (Pelliot, 'Voyages', p. 391).

² *Shai kan*; the first character is not in Giles, it is a variant form of no. 9654; the second character (Giles, no. 5814), 'shield', is an unauthorized form of no. 5809, 'dry'.

³ Probably Feng should have punctuated '... plant called *chiao-chang*; the leaves are long...'; *chiao-chang* is Malay *kajang*; Ma Huan evidently means the nipa palm (*Nipa fruticans*); the word *kajang* was more or less acclimatized among the population of the Chinese ports at the end of the thirteenth century (Pelliot, 'Voyages', p. 392, n. 1).

⁴ *Arundinaria japonica* (Pelliot, 'Voyages', p. 393).

⁵ Fruit of *Nephelium litchi*; see Yule and Burnell, under 'Leechee', p. 513a.

⁶ See Yule and Burnell under 'Nipa', p. 626a. The wine was made, not from the fruit, but from the sap of the flower-stalks (Groeneveldt, p. 211, n.).

⁷ The text is probably corrupt; K has 'weave them into fine mats'. On mats see Wheatley, 'Commodities', under 'Pandanus mats', pp. 64-5.

⁸ The equivalent of 2 *ch'ih* was 24.4 inches; 1 *chang* equalled 10 feet 2 inches.

⁹ *Tung kua* (Giles, nos. 12,248; 6281), 'eastern gourd'; this vegetable is the same as the *tung kua*, 'winter gourd' of Champa. Shu Hsin-Ch'eng omits to give this information.

¹⁰ The equivalent of 1 *chin* was 19.18 ounces troy; the present market-value of the silver would be £8 19s.

¹¹ *T'o lung* (Giles, nos. 11,397; 7479), as in S and K, which Feng here prefers; C and Kung Chen read 'turtle dragons'; evidently Ma Huan refers to the crocodile.

¹² The equivalent of 3 *ch'ih* was 36.7 inches.

The Country of Man-la-chia

have four feet; the body is covered with scales; on the back grows a row of spikes; they have a dragon's head and bared teeth; [and] when they encounter a man, they bite him at once.

The mountains produce a black tiger,¹ somewhat smaller than the yellow tiger of the Central Country; the hair is black, [but] it has dark stripes, too; the yellow tiger, also, is sometimes found. In the town there are tigers which turn into men;² they enter the markets, and walk about mixing with people; [and] after they have been recognized, they are captured and killed.

[Beings] like the 'corpse-head barbarian' of Chan city also exist in this place.³

4. Whenever⁴ the treasure-ships of the Central Country arrived there, they at once erected a line of stockading, like a city-wall, and set up towers for the watch-drums at four gates; at night they had patrols of police carrying bells; inside, again, they erected a second stockade, like a small city-wall, [within which] they constructed warehouses and granaries; [and] all the money and provisions were stored in them. The ships which had gone to various countries⁵ returned to this place and assembled; they marshalled the foreign goods and loaded them in the ships; [then] waited till the south wind was

¹ Perhaps Ma Huan refers to the black panther.

² Belief in were-tigers is still to be found in rural villages (J. N. McHugh, *Hantu Hantu* (Singapore, 1955), p. 102). Ma Huan appears to be the earliest writer who records the belief in Malaya. Eredia, in 1613, recounted the solemn excommunication of were-tigers at Malacca in 1560.

³ Ma Huan's description of the Champa vampire shows that he refers to the *Hantu Langsuyar*, sometimes called *Hantu Pontianak*, or its relative the *Hantu Penanggalan*; see McHugh, pp. 79, 81.

⁴ *Fan* (Giles, no. 3399), 'all', that is, 'every time'; Feng takes this reading from S, and as a result considers that the Chinese established this cantonment on every one of Cheng Ho's seven expeditions (Feng, pp. 25-6); Pelliot, on the other hand, thought that the cantonment was established on a single occasion, to wit, on the seventh expedition of 1431-3 when Cheng Ho stayed 18 days at Malacca (Pelliot, 'Voyages', pp. 395-400; Pelliot, 'Encore', pp. 219-20). Wheatley held that the occasion was on the fourth expedition of 1413-15 (Wheatley, *Khersonese*, p. 324, n. 2). Kung Chen (Hsiang Ta, *Kung Chen*, pp. 16-17), writing more fully, states that the Chinese treated the cantonment as a 'foreign prefecture'; ships which had gone to Champa, Java, and other such places brought their goods here for storage; separate flotillas then went to Hormuz and such places, and within a week of the pre-arranged date re-assembled at Malacca; stored goods were loaded on board, and when the fair wind arrived, the combined fleet sailed back to China. This passage on the Chinese cantonment at Malacca is very important; and Pelliot's understanding of Ma Huan's text differs on no less than six points from that of Groeneveldt (p. 245) and Wheatley (*Khersonese*, p. 324).

⁵ We here have another reference to ships being detached from the main fleet; they were detached, according to Pelliot, at Malacca (Pelliot, 'Voyages', pp. 396, 400), and, according to Feng, at Atjeh (Feng, p. 26), where he wrongly locates Semudera (Sumen-ta-la).

Ying-yai sheng-lan chiao-chu

perfectly favourable. In the middle decade of the fifth moon they put to sea and returned home.¹

[Page 26] Moreover, the king² of the country made a selection of local products, conducted his wife and son, brought his chiefs, boarded a ship and followed the treasure-ships;³ [and] he attended at court [and] presented tribute.⁴

THE COUNTRY OF YA-LU⁵

[ARU, DELI]

Setting sail from the country of Man-la-chia⁶ and travelling with a fair wind, you can reach [this place] in four days and nights. In this country there is an estuary called Fresh Water estuary;⁷ you enter the estuary and come to the capital. On the south there are great mountains; on the north is the great sea; on the west it adjoins the boundary of the country of Su-men-ta-la;⁸ [and] on the east there is flat land.

It is suitable for the cultivation of dry-land rice;⁹ [but] the rice-grains are small. Provisions are always obtainable. The people practise agriculture and fishing for a livelihood.

The customs are pure and simple. In this country the marriages, funerals

¹ In 1433 the fifth moon began on 19 May; the second decade, therefore, began on 29 May; Cheng Ho, however, left Malacca on 28 May, which was the last day of the first decade; but the difference of one day is probably immaterial. In May southerly winds become frequent in the central part of Malacca strait, and the south-west monsoon is considered to blow from June to September.

² In 1433 the king was Sri Maharaja (1424-44), second king of Malacca, son of the founder and first king of Malacca.

³ According to the *Ming shih* (Groeneveldt, p. 250), the king did not reach Nanking till the autumn, and as Cheng Ho reached Peking on 22 July, the king must have followed in his own ship (Pelliot, 'Voyages', p. 400).

⁴ According to Duyvendak, it was as part of a tribute-present from Malacca that spectacles were first introduced into China in 1410 (Duyvendak, 'Hsi-yang chi', pp. 7, 12).

⁵ Giles, nos. 12,812; 7388; Aru; to be located in the vicinity of Belawan (3° 47' N, 98° 41' E) in the Deli district on the east coast of Sumatra. Aru at this time possessed no political or economic importance. For Aru see Hsiang Ta, *Kung Chen*, pp. 17-18; Fei Hsin, ch. 2, p. 27 (Rockhill, Part II, p. 142); *Ming shih*, p. 7919, row 2 (Groeneveldt, pp. 217-18); Meilink-Roelofs, pp. 29-30, 81.

⁶ Malacca.

⁷ Giles, nos. 10,646; 10,128; 1245; 'Fresh Water estuary', the estuary of Sungai Deli.

⁸ Semudera, the Lho Seumawe region. The boundary was probably near the Sungai Tamiang (mouth in 4° 25' N, 98° 15' E).

⁹ In this undesirable system of cultivation, rice is planted in burnt-off jungle; the system gives poor yields, causes erosion, ruins the primary jungle, and hinders development; moreover, the ground must be left fallow for at least four years afterwards. On upland rice culture see Wickizer, p. 11.

The Country of Ya-lu

and other such things are all the same as in the countries of Chao-wa¹ and Man-la-chia.

The commodities which they use are few, [but] a cotton cloth called *k'ao-ni*,² and rice and grain, oxen, goats, fowls and ducks are very plentiful. Junket is sold in abundance.

The king³ of the country and the people of the country are all Muslims.

In the mountain-forest there occurs a kind of flying tiger, as large as a cat; the body is covered with ash-coloured hair; it has fleshy wings, like a bat, but the fleshy wing of the front foot grows joined to the back foot; it can fly, [Page 27] [but] not far; [and] if people catch it, it will not eat the household-food, so it dies.⁴

The land produces such things as yellow *su* incense and *chin-yin* incense. It is but a small country.

THE COUNTRY OF SU-MEN-TA-LA⁵ [SEMUDERA, LHO SEUMAWE]

The country of Su-men-ta-la is exactly the same country as that formerly [named] Hsü-wen-ta-na. This place is indeed the principal centre for the Western Ocean.

¹ Java.

² Giles, nos. 5966; 8197; not satisfactorily explained; Pelliot did not accept Groeneveldt's explanation of Malay *kain*, the word for textiles (Pelliot, 'Voyages', pp. 400-1). Wang Ta-yüan mentions a cloth named *kao-ni* produced in Bengal (Rockhill, Part II, p. 436). On cloth see Wheatley, 'Commodities', p. 59. Ma Huan omits to mention camphor, which is included by Fei Hsin (Rockhill, Part II, p. 142). On camphor see Wheatley, 'Commodities', pp. 101-5.

³ Perhaps the sultan 'Hu-hsien' (Giles, nos. 4927; 4440), probably Husain, who was reigning in 1411 (Groeneveldt, p. 217); or perhaps sultan Sajak, whose son was reigning at some time during the period from 1477 to 1488 (see Brown, p. 120).

⁴ Probably a flying lizard or flying lemur (Rockhill, Part II, p. 142, n. 1).

⁵ Giles, nos. 10,320; 7751; 10,481; 6653; Semudera (Samudra). The town of Semudera stood on the left or west bank of the Krueng Pasai, nearly opposite to Pasai or Pase, and about five miles from the mouth of the river, on the north coast of Sumatra (Brown, p. 44; G. E. Gerini, *Researches on Ptolemy's Geography* (London, 1909), p. 642; A. H. Hill (ed.), 'Hikayat Raja-Raja Pasai', *Journal of the Malayan Branch of the Royal Asiatic Society*, vol. XXXIII, pt. 2 (1960), p. 12). The country of Semudera must be placed in the Lho Seumawe district and surrounding region. In Ma Huan's time and until about the middle of the fifteenth century, the kingdom of Semudera, sometimes called Pasai, while relatively unimportant from the political point of view, was yet the premier state of western Malaysia; and, economically, it constituted the focal point of international trade until surpassed by Malacca. For Semudera (Pasai) see Hsiang Ta, *Kung Chen*, pp. 18-20; Fei Hsin, ch. 1, pp. 22-4 (Rockhill, Part II, pp. 156-7); *Ming shih*, p. 7918, row 3 (Groeneveldt, pp. 211-12); Majumdar, *Suvarnavipa*, pt. 1, pp. 374-5; Brown, p. 98; Schrieke, pt. 1, p. 17; pt. II, pp. 255-6, 260-3; Meilink-Roelofs, pp. 19, 20, 33, 34, 90; Coedès, *États*, p. 440; Hall, *History*, p. 191.

Ying-yai sheng-lan chiao-chu

From the country of Man-la-chia the treasure-ships go towards the south-west;¹ after five days and nights with a fair wind they first come to a sea-side village called Ta-lu-man,² where the ships are moored, [and] you can reach [the capital] by travelling south-east for more than ten *li*.³

The country has no walled city and suburban area. There is a large stream of quite fresh water flowing out into the sea;⁴ [and] the tidal water flows and ebbs twice a day. In the estuary the waves are large and ships are constantly sinking.

From the capital, if you go south for a distance of something more than a hundred *li*,⁵ there are great jungle-covered mountains; on the north is the great sea; on the east, too, there are great mountains, as far as the boundary with the country of A-lu;⁶ [and] on the side which is directly west is the great sea. The mountains adjoin two small kingdoms; first you come to the boundary of the king of Na-ku-erh;⁷ [and] then you come to the boundary of the king of Li-tai.⁸

The king of the country of Su-men-ta-la had previously [*Page 28*] been raided by the 'tattooed-face king' of Na-ku-erh; [and] in the fighting he received a poisoned arrow in the body and died. He had one son, who was young and unable to avenge his father's death. The king's wife made a vow before the people, saying 'If there is anyone who can avenge my husband's death and recover his land, I am willing to marry him and to share with him the management of the country's affairs.' When she finished speaking, a fisherman belonging to the place was fired with determination, and said 'I can avenge him.'

Thereupon he took command of an army and at once put the 'tattooed-face king' to flight in battle; [and] later he avenged the [former king's death] when the 'tattooed-face king' was killed. The people of the [latter] submitted and did not dare to carry on hostilities.

Whereupon the wife of [the former] king, failing not [to carry out] her previous vow, forthwith married the fisherman. He was styled 'the old king', and in such things as [the affairs of the royal] household and the taxation of the land, everybody accepted the old king's decisions. In the seventh year of the Yung-lo [period]⁹ the old king, in fulfilment of his duty,

¹ Ma Huan errs; the true direction from Malacca is north-west.

² Giles, nos. 10,481; 7388; 7644; presumably to be identified with the 'Sarha' or 'Sarhi' of Ibn Battuta and the 'Telok Teria' of the *Hikayat Raja-Raja Pasai* (Sir H. A. R. Gibb, *Ibn Battuta* (London, 1929), p. 273; Hill, 'Pasai', p. 136; Gerini, p. 646).

³ That is, something more than 3 miles.

⁵ That is, something more than 33 miles.

⁷ Nagur; in the Peudada region.

⁸ Lide ([M-]ródoe?); in the Meureudu region.

⁴ Krueng Pasai.

⁶ 'Aru'; Deli region.

⁹ That is, 1409.

The Country of Su-men-ta-la

brought tribute of local products, and was enriched by the kindness of Heaven; [and] in the tenth year of the Yung-lo [period]¹ he returned to his country.

When the son of the former king had grown up, he secretly plotted with the chiefs, murdered his adoptive father the fisherman, usurped his position, and ruled the kingdom.

The fisherman had a son by his principal wife; his name was Su-kan-la;² he took command of his people, and they fled away, taking their families; [and], after erecting a stockade in the neighbouring mountains, from time to time he led his men in incursions to take revenge on his father's enemies. In the thirteenth year of the Yung-lo [period]³ the principal envoy the grand eunuch Cheng Ho and others, commanding a large fleet of treasure-ships, arrived there; they despatched soldiers who captured Su-kan-la;⁴ [and] he went to the capital and was publicly executed. The king's son was grateful for the imperial kindness, and constantly presented tribute of local products to the court.⁵

In this country the climate is not the same during [all] the four seasons [of the year]; in the morning it is hot, [*Page 29*] like summer; [and] in the evening it is cold, like autumn; moreover, in the fifth moon and in the seventh moon it is malarious.

The mountains produce sulphur, which comes from the inside of caves; plants and trees will not grow on these mountains; [and] the earth and rocks are all a bright yellow colour.⁶ The arable land is not extensive; they cultivate only dry-land rice, which ripens twice a year; [and] barley and wheat are both wanting.⁷

¹ That is, 1412.

² Giles, nos. 10,320; 5810; 6653; Sekandar (Iskandar).

³ That is, 1415.

⁴ Sekandar (Iskandar).

⁵ This account raises a number of difficulties which Pelliot has considered at length (Pelliot, 'Voyages', pp. 290-2, and notes; Pelliot, 'Notes', pp. 312-14). In the first place, there are inconsistencies between the accounts given in the *Shih-lu*, in Ma Huan, and in the *Ming shih* (Groeneveldt, pp. 169, 212). Pelliot preferred the account of Ma Huan. In the second place, Yamamoto discovered references in the *Shih-lu* to one and the same king, Zain Al-'Abidin, as being on the throne from at least 1405 to 1433; hence it was impossible for the 'old fisherman' to go to court or to send an envoy in 1409; so Ma Huan must be wrong on this point. Pelliot thought that Yamamoto was probably correct in regarding the whole story as a popular romance. Duyvendak, on the other hand, treated these events as history, and took the view that, whereas the original order for the fourth expedition was made on 18 December 1412, additional orders to go to Semudera were given to Cheng Ho before he left the China coast about January 1414 (Duyvendak, 'Dates', pp. 376-8). The encounter with Sekandar took place in 1415 (*Ming shih*, p. 7918, row 3) when Cheng Ho was returning to China on his fourth expedition.

⁶ The mountains are not less than 12 miles from the coast. Sulphur abounds near Sumatran volcanoes. And see Wheatley, 'Commodities', under 'Sulphur', p. 91.

⁷ Literally, 'the two wheats, great and small'.

As to their pepper: householders who reside over against the mountains establish gardens for its cultivation; it climbs and creeps as it grows, like the 'sweet greens'¹ of Kuang tung [province] in the Central Country; it produces flowers which are yellow and white in colour; the pepper nodes constitute the fruits; they are green when unripe, red when mature; [men] wait until the time when the [berries are] half-mature, [then] they pluck them, dry them in the sun, and sell them as merchandise; the pepper [consisting of] hollow and large berries is pepper from this place.² Every one hundred *chin* on our official steelyard are sold there for eighty gold coins, representing the value of one *liang* of silver.³

For fruits they have such things as bananas, sugar-cane, *mang-chi-shih*⁴ and jack-fruit. They have a kind of foul-smelling fruit, of which the foreign name is *tu-erh-wu*;⁵ it resembles the 'water-fowl head'⁶ of the Central Country; it is eight or nine *ts'un* long;⁷ on the skin grow sharp prickles; when ripe, it splits open into five or six sections; the foul smell resembles that of putrid beef; [and] inside there are fourteen or fifteen lumps, as big as chestnuts, of milk-white flesh, very sweet and delicious to eat; moreover, all

¹ Giles, nos. 11,218; 11,513; *Lycium chinense* (Pelliot, 'Voyages', p. 401).

² The industry must have been established after Wang Ta-yuan wrote in 1350; at the beginning of the sixteenth century Pasai had become one of the principal pepper-ports, and for that reason was subjugated by Atjeh in 1524.

³ The equivalent of 100 *chin* was 131.5 pounds avoirdupois, and 1 *liang* of silver equalled 1.199 ounces troy, with a present-day market-value of 11s. 2d. This represents the price of pepper to be 1.02d. a pound. The texts are in an unsatisfactory condition; while C and K state that 100 *chin* of pepper were sold for 80 gold coins, S says 8 gold coins; Kung Chen gives the number as 8, and Huang Sheng-tseng as 100. We should naturally presume that Ma Huan alluded to the Semudaran gold *dinar* which he describes below; but this cannot be the case if all the relevant figures given in Feng's rescension are correct, for these figures represent that silver was more valuable than gold, since 1 *liang* of silver weighed 100 *fen*, whereas the gold content of 80 *dinar*, 70 per cent pure and weighing 2.3 *fen* each, would weigh 128.8 *fen*. If, however, Ma Huan means the Semudaran gold *dinar*, then the figure of 80 coins is incorrect; we should expect that the ratio of the value of gold to silver would be about 5.61 to 1 as in Cochin, and therefore the number of Semudaran gold *dinar* would probably be 11, since the gold content of 11 *dinar* would weigh 17.71 *fen*, and 1 *liang* divided by 5.61 is 17.82 *fen*; thus a ratio of 5.64 to 1 is indicated. The text being corrupt, it would be unprofitable to calculate the price of pepper based on the value of gold.

⁴ Malay and Javanese *manggis*, the mangosteen.

⁵ Giles, nos. 12,049; 3333; 12,721; for the last character K has *ma* (Giles, no. 7576); it must be a misprint for *yen* (Giles, no. 13,042), which, curiously enough, appears in the Columbia University copy of K; the misprint must go back to the first edition of Ma Huan's book in 1451. The fruit is the durian, Malay *durian*, *Durio zibethinus*. See Pelliot, 'Voyages', p. 401; Yule and Burnell, under 'Durian', p. 331 b. Nowadays the Chinese in Malaya call the fruit *liu-lin*.

⁶ The popular name for the *ch'ien shih* (Giles, nos. 1753; 9947), *Euryale ferox*, a plant allied to the water-lily (Pelliot, 'Voyages', p. 401).

⁷ The equivalent of 8 *ts'un* was 9.7 inches.

The Country of Su-men-ta-la

the [lumps] have seeds inside them, [and the seeds], when roasted and eaten, taste like chestnuts.

Sour oranges are very plentiful; they have them continuously during [all] four seasons [of the year]; they are like the 'lion mandarin' or green orange of Tung t'ing;¹ the taste is not [very] sour; [and] they can be kept for a long time [Page 30] without going bad.

They also have a kind of sour fruit, of which the foreign name is *an-pa*;² it is like a large *hsiao* pear,³ [but is] somewhat longer, and has a green skin; the flavour is fragrant and strong; when you want to eat it, you pare off the skin and shave off slices from the outside of the flesh and eat them, [the taste being] sour-sweet and very delicious; [and] the stone is as large as a fowl's egg. Peaches, plums, and other such fruits are entirely wanting.

For vegetables, they have onions, garlic, ginger,⁴ and mustard. Gourd-melons are very abundant, [and they keep] for a long time without going bad. The water-melons have green skins and red seeds; [and] some are two or three *ch'ih* long.⁵

The people rear yellow oxen extensively, and junket is sold in great quantity. The goats all have black hair, [and] there is not a single white one. There are no caponized⁶ fowls; these foreign people do not understand how to caponize⁷ fowls; they have only hen-birds;⁸ large cock-birds weigh seven *chin*;⁹ when slightly cooked they are quite tender; the flavour is most delicious; [and] they are definitely superior to the fowls of other countries. The ducks are short-legged, [and] some large ones weigh five or six *chin*.¹⁰

They also have the mulberry tree, [and] people rear silk-worms; [but] they do not understand how to reel off silk [threads]; they understand only how to make cotton.

The customs of this country are pure and honest. Their speech, writing, marriages, funerals, the dress which they wear, and other such things, are all the same as in the country of Man-la-chia.¹¹

¹ Presumably Ma Huan refers to the Tung t'ing lake in Hunan province. The texts differ; C is as in Feng; S has 'just like the mandarins and the green oranges of Wu [Kiangsu province] and of Tung t'ing'; K has 'like the Po-ssu [Persian] oranges'.

² Giles, nos. 48; 8527; from the northern Indian name *amba*, the mango, *Mangifera indica*. See Yule and Burnell, under 'Mango', p. 553b.

³ The common Chinese pear, a variety of *Pyrus sinensis* (Pelliot, 'Voyages', p. 402).

⁴ For 'ginger', K has 'leeks'.

⁵ The equivalent of 2 *ch'ih* was 24.4 inches.

⁶ This character is not in the dictionaries; we take it as being used for *shan* (Giles, no. 9675), 'to geld'.

⁷ *Shan* (Giles, no. 9668), 'a fan'; we take it as being used for *shan* (Giles, no. 9675), 'to geld'.

⁸ That is, besides cock-birds.

⁹ The equivalent of 7 *chin* was 9.27 pounds avoirdupois.

¹⁰ The equivalent of 5 *chin* was 6.57 pounds avoirdupois.

¹¹ Malacca.

As to the dwellings of the people: the houses are built in storeyed form; in the higher [part of the house] they do not lay down a plank [flooring], but they use two kinds of wood, coconut-palm and areca-palm, which they split into strips and bind together¹ with rattans; [over these strips], again, they spread rattan mats; [this platform] is eight *ch'ih*² high [from the ground], and on this the people live; [on this] elevated [platform] they also set screens.³

At this place there are foreign⁴ ships going and coming in large numbers, hence all kinds of foreign goods⁵ are sold in great quantities in the country.

In this country they use gold coins and tin coins. The foreign name for the gold coin is *ti-na-erh*;⁶ [Page 31] they use pale gold, seventy per cent pure, for casting it. The diameter of each coin is five *fen* [in terms of] our official *ts'un*;⁷ on the reverse⁸ it has lines;⁹ [and] it weighs two *fen* three *li*¹⁰ on our official steelyard; [but] it is sometimes said that every forty-eight coins weigh one *liang* four *fen* of gold.¹¹ The foreign name for the tin coin is *chia-shih*;¹² [and] in all their trading they regularly use tin coins.

¹ *Cha* (Giles, no. 127), 'a thin wooden tablet'; we take it as being used for *cha* (Giles, no. 128), 'to bind'.

² The equivalent of 8 *ch'ih* was 8 feet 1 inch.

³ The texts are not consistent; C is essentially the same as that given by Feng, but does not mention the height; S differs in stating that they laid down planks, and that the mats were of bamboo, but is silent about screens; and K differs in saying that coconut or *kuang lang* tree (*Caryota ochlandra*) was used for the splits, and that screens were not set up. Ma Huan says later that the dwellings of the people were the same as in Nan-p'o-li (Lambri), the Kutaradja district of Atjeh.

⁴ The word 'foreign' here denotes countries other than the country which Ma Huan is describing.

⁵ Ma Huan does not mention the Chinese trade-goods. They are specified by Fei Hsin (Rockhill, Part II, p. 157), who includes iron, which was one of the commonest commodities shipped from China to the South Seas; see Wheatley, 'Commodities', p. 117.

⁶ Giles, nos. 10,902; 8090; 3333; *dinar*.

⁷ The equivalent of 5 *fen* was 0.6 inch.

⁸ K has 'on the face and on the reverse'.

⁹ *Wen* (Giles, no. 12,636); Ma Huan may mean 'characters' (Pelliot, 'Voyages', pp. 432-3).

¹⁰ Since 2.3 *fen* equalled 13.23 grains or 0.02758 ounces troy, the present-day value of the gold content would be 4s. 9d. Feng adopts the reading of C; S has 3.5 *fen*, and K 5.5 *fen*; while Kung Chen writes 3.5 *fen*, and Chang Sheng 5 *fen*. There are different readings in Fei Hsin and Huang Sheng-tseng. We cannot enter into an examination of these divergent figures.

¹¹ Since 1.04 *liang* equalled 598.65 grains, on this calculation 1 *dinar* would weigh 12.47 grains. This sentence was not written by Ma Huan, and Feng introduces it from the book of Huang Sheng-tseng.

¹² Giles, nos. 1144; 9951; evidently the word referred to by the Portuguese as 'caixa' and by the English as 'cash'. The use of the word by Ma Huan shows that it was not the Portuguese who first applied the word to the petty coins of Malaysia (Pelliot, 'Encore', p. 220). Compare Yule and Burnell, under 'Cash', p. 167a.

The Country of Su-men-ta-la

In this country in every trading transaction they all take sixteen *liang* to make one *chin*;¹ [and] this is the general practice everywhere in calculating and reckoning prices.

The king of Na-ku-erh² is also called the 'king of the tattooed-faces'; his land lies to the west of Su-men-ta-la,³ the boundaries of the [two] regions being contiguous. There is only one large mountain-village, but the subject population all have three pointed blue marks scratched on the face as a symbol; hence [the king] is styled 'king of the tattooed-faces'.

The country is not extensive, [and] the population consists only of something over a thousand families. Fields are few, [and] the people mostly cultivate dry land for a living. Provisions are scarce. Pigs, goats, fowls and ducks—all these they have.

Their speech and manners are the same as in the country of Su-men-ta-la.⁴ The land has no products.⁵ It is but a small country.

¹ The Chinese *liang* equalled 1.31 ounces avoirdupois and the Chinese *chin* equalled 1.31 pounds avoirdupois. Foreign traders in Malaysia adopted these units of weight, with slight variations, and applied to them the Malay names *tahil* and *kati*, respectively; under these names the Chinese weights were spread far and wide outside China. See J. J. de Campos, 'The Origin of the Tical', *Journal of the Thailand Research Society*, vol. XXXIII, pt. 2 (1941), pp. 131-4; Yule and Burnell, under 'Tael', p. 888a, and under 'Catty', p. 175a.

² Giles, nos. 8090; 6222; 3333; we take the name to be a transliteration of the Sanskrit *Nagara*, 'city', and we locate the place in the Peudada region, since Peudada is the Portuguese Pirada situated between Lide and Pasai, and Na-ku-erh was situated between, and contiguous to, Li-tai and Su-men-ta-la (Huang Sheng-tseng). The people were an advanced establishment of the Bataks (Groeneveldt, p. 219; Pelliot, 'Voyages', p. 304); and they possessed sufficient strength to cut off Semudera from its vassal Li-tai (Lide). The country was of no political or economic significance. For Na-ku-erh see Hsiang Ta, *Kung Chen*, p. 20; Fei Hsin, ch. 1, pp. 24-5 (Rockhill, Part II, pp. 147-8); Framp-ton's translation of Conti [1420] (Penzer, *Polo*, p. 129); *Ming shih*, p. 7919, row 2.

³ Semudera, that is, Lho Seumawe district.

⁴ The Bataks speak a dialect of Malay, and, in addition to the Arabic script, an old alphabet, adapted from the Sanskrit, is still to be found among them. They have a number of unusual customs; for instance, a Toba chief may have eight wives. See E. M. Loeb, *Sumatra* (Vienna, 1935), pp. 17-18, 20-96.

⁵ Fei Hsin, however, says that the people exchanged aromatics, blue lotuses, and cloth for silk and porcelain (Groeneveldt, p. 219; Rockhill, Part II, p. 148).

Ying-yai sheng-lan chiao-chu

THE COUNTRY OF LI-TAI¹

[LIDE, MEUREUDU]

The land of Li-tai is also a small country. It lies on the west of the boundary with the land of Na-ku-erh;² south of this place there are large mountains; on the north it abuts on the great [Page 32] sea; [and] on the west it joins the boundary of the country of Nan-p'o-li.³

The people of the country [comprise] three thousand families. They themselves elect a man to be king, so that he may administer their affairs. [The country] is subject to the jurisdiction of the country of Su-men-ta-la.⁴

The land has no products.

The speech and usages are the same as in Su-men-ta-la.

In the mountains they have very many wild rhinoceros; and the king sends men to capture them.

[Their envoys] accompany [those from] the country of Su-men-ta-la to bring tribute to the Central Country.

THE COUNTRY OF NAN-P'O-LI⁵

[LAMBRI, ATJEH]

From Su-men-ta-la⁶ you go due west; [and] with a fair wind you can reach [this place after] travelling for three days and nights. This country lies beside the sea, [and] the population comprises only something over a thousand

¹ Giles, nos. 6942; 10,507; the 'Lide' of the Portuguese; this country probably bore some such name as '[M-]rödoe', and it should be located in the Meureudu district, since 'Li-tai' (no doubt Portuguese Lide) reasonably well represents '[M-]rödoe', and the position, c. 96° 15' E, fits in reasonably well between Ié Leubeuë (Portuguese Aeilabu, 96° 02' E) and Peudada (96° 34' E). It was of no political or economic importance. For Li-tai see Hsiang Ta, *Kung Chen*, pp. 20-1; *Ming shih*, p. 7919, row 2; Majumdar, *Suvarnavipa*, pt. 1, p. 375.

² Nagur; which we locate in the Peudada district.

³ Lambri (Lamuri), that is, Atjeh.

⁴ Semudera, that is Lho Seumawe. As has been noted above, the Bataks had been able to force themselves between Semudera and its vassal Lide (Meureudu).

⁵ Giles, nos. 8128; 9423; 6870; Lambri, otherwise Nan-wu-li, Lamuri, of the Arabs and Malays. The country comprised the north-west corner of Sumatra, in and around the Kutaradja district of Atjeh. The port of Nan-p'o-li was Pedir (Pidië), now called Sigli, 5° 23' N, 95° 57' E. Lambri, at the beginning of the thirteenth century a trading point of some importance, had by 1286 been surpassed by Pasai (Pase, that is, Semudera); and in Ma Huan's time, while politically insignificant, it yet retained a certain commercial importance from the export of laka-wood, rhinoceros horn, and various other products. For Lambri see Hsiang Ta, *Kung Chen*, pp. 21-2; *Ming shih* (on Nan-p'o-li, p. 7919, row 2, Groeneveldt, p. 221; on Nan-wu-li, p. 7922, row 1); Majumdar, *Suvarnavipa*, pt. 1, pp. 375-6; Cortesão, vol. 1, p. 139; Schrieke, pt. 1, p. 17; pt. II, pp. 256, 266.

⁶ Semudera (Lho Seumawe).

The Country of Nan-p'o-li

families. All are Muslims, [and] they are very honest and genuine. On the east the territory adjoins the boundary of the king of Li-tai;¹ on both west and north it abuts on the great sea; if you go south, there are mountains; [and] south of the mountains there is the great sea again.

The king of the country is also a Muslim. For the residence in which the king lives they use great [pillars of] wood, four *chang* high;² it is constructed in storeyed form; underneath the [upper] storey it is quite unfurnished; and under here they release the oxen, goats and [other] domestic animals; on all four sides round the upper story [is a wall] of planks joined together very neatly, and on this [storey] is the place where they do all their sitting, sleeping, and eating.

The dwellings of the populace are the same as in the country of Su-men-ta-la.³

In this place yellow oxen, water-buffaloes, goats, fowls, ducks and vegetables are all scarce.⁴ Fish and shrimps are very [Page 33] cheap. Rice and grain are scarce.

They use copper coins.

The mountains produce laka-wood; this place has the best quality; [and] its name is 'lotus-flower laka-wood'. They also have the rhinoceros.

In the sea to the north-west of the country, there is a large, flat-topped, steep mountain, which can be reached in half a day; its name is Mao mountain.⁵ On the west of this mountain, too, it is all the great sea; indeed, this is the Western Ocean, [this area being] named the Na-mo-li ocean,⁶ Ships coming across the ocean from the west take in sail [here], and they all look to this mountain as a guiding mark.

In the shallow water, about two *chang* deep,⁷ at the side of the mountain there grows a marine tree; the people there recover it, and sell it as a valuable commodity; this is coral; [and] the largest trees are two or three *ch'ih* in height.⁸ At the top of the roots, there is a single large root as big as [one's]

¹ Meureudu region.

² The equivalent of 4 *chang* was 40 feet 9 inches.

³ Semudera. For the houses of modern Atjeh see Loeb, pp. 220-3.

⁴ K also mentions garlic as being scarce.

⁵ Collating sixteen readings in six Chinese works, the editor concludes that the full name was 'Ch'ieh-nan-mao', a Chinese rendering of *kelembak*, the finest kind of lign-aloes. To represent the sound *mao*, the 'Shun-feng' uses the character meaning 'face'; hence Gerini and Pelliot were wrong in thinking that *mao* should be translated 'hat'. The island is Poulo Weh (5° 54' N, 95° 13' E), about nine miles north of Atjeh; see Appendix 5, The voyage from Kuala Pasai to Beruwala.

⁶ Giles, nos. 8090; 8016; 6887; the Lamuri ocean.

⁷ The equivalent of 2 *chang* was 20 feet 4 inches. On coral see Wheatley, 'Commodities', under 'Precious coral', pp. 77-80.

⁸ The equivalent of 2 *ch'ih* was 24.4 inches.

thumb; it is deep black like ink, and has a soft sheen like jade-stone; a little higher up it forks out into attractive fluttering branches; [and] the large piece at the top of the roots can be cut into hat-buttons [and other such] articles.

At the foot of this Mao mountain there is also a resident population of twenty or thirty families. Each man styles himself a king; if you ask his names, he says in reply '*A-ku la-ch'a*',¹ 'I am in truth a king'; if you ask the next man, he says '*A-ku la-ch'a*', 'I also am a king'; it is most laughable.

This country is subject to² the jurisdiction of the country of Nan-p'o-li.³

The king of Nan-p'o-li constantly accompanies the treasure-ships and brings laka-wood and other such things as tribute to the Central Country.

[Page 34]

THE COUNTRY OF HSI-LAN⁴

[CEYLON]

THE COUNTRY OF THE NAKED PEOPLE⁵

[NICOBAR AND ANDAMAN ISLANDS]

Putting out to sea from the South [side] of Mao mountain and travelling towards the north-east⁶ with a fair wind for three days, you see Ts'ui lan mountains⁷ situated in the middle of the sea. These mountains number three or four; but one mountain is very high and large; [and] the foreign name for it is An-tu-man mountain.⁸

¹ Malay *aku*, 'I', and *raja*, 'prince'.

² *Shu* (Giles, no. 10,061); Feng supplies the word from K but does not note it.

³ Lambri.

⁴ Giles, nos. 4157; 6721; a transliteration of the name 'Silan', by which the island of Ceylon was then known. In the time of Ma Huan, the small principalities of the land formed political entities of no consequence, but the island was of economic importance, famed for elephants, gem-stones, and pearls, and it enjoyed renown as the centre of Theravada (Hinayana) Buddhism. For Ceylon see Hsiang Ta, *Kung Chen*, pp. 22-4; Fei Hsin, ch. 1, pp. 29-31 (Rockhill, Part II, pp. 381-3); Penzer, *Polo*, p. 128; *Ming shih*, p. 7921, row 1; Yule and Burnell, p. 181a; Hsü Yü-hu, pp. 42-4, 103-4; Nicholas and Paranavitana, *passim*, especially pp. 302-8 (with map).

⁵ Lo hsing kuo (Giles, nos. 7308; 4617; 6609), 'naked body country', the Nicobar and Andaman islands, called 'The Country of the Naked People' by I Ching (A.D. 671-95); see Gerini, pp. 379-82.

⁶ Mao mountain is Poulo Weh. K has 'from Nan-p'o', that is, from Lambri (Atjeh), and gives no direction. The true direction from Poulo Weh is north-west, not north-east.

⁷ Giles, nos. 11,933; 6732; 9663; 'Kingfisher-blue mountains', the Chinese name for the Nicobar and Andaman islands. Gerini (p. 396) suggests a derivation from the name of Tillanchong island in the Nicobar group. See Yule and Burnell, pp. 29a, 624b. For a recent visit to the islands see S. Vaidya, *Islands of the Marigold Sun* (London, 1960).

⁸ Giles, nos. 46; 12,071; 7644; 9663; K alone gives the first character correctly; C has 'So', and S 'Ts'uan'.

The Country of Hsi-lan

The people of those places dwell in caves; men and women have naked bodies, all without a stitch of clothing,¹ like the bodies of brute beasts.² The land does not produce rice; but they eat such things as mountain-tubers, jack-fruit, and bananas;³ [and] sometimes they catch fish and shrimps in the sea and eat them.

The people have a traditional saying that if they have a stitch of cloth on their bodies, they will develop septic ulcers. In olden times Shih-chia Buddha⁴ crossed the sea and went ashore at this place; having taken off his clothing, he entered the water to bathe; the people there stole and hid his clothes; [and] they were cursed by Shih-chia; this is the reason why, right down to the present day, the people have been unable to wear clothing.

[The place] commonly called Ch'u luan wu⁵ is this country.

After the ship has passed here and travelled towards the west for seven days, you see Parrot's Beak mountain;⁶ two or three days later you come to Buddha Hall mountain;⁷ then you reach the jetty in the country of Hsi-lan;⁸ its name is Pieh-lo-li;⁹ [and] from this [jetty] the ship is moored, and you go ashore and walk on dry land.

In this place, on a shining stone at the foot of a mountain beside the sea, [Page 35] there is a single foot-print about two *ch'ih* long;¹⁰ the saying is that when Shih-chia¹¹ came from Ts'ui lan mountains¹² and went on shore from this place, his foot trod on this stone, and therefore the foot-

¹ Literally, 'an inch of thread'; even as recently as 1924 in Great Nicobar the men of the interior went quite naked (G. Whitehead, *In the Nicobar Islands* (London, 1924), p. 22).

² It is hard to believe that these people had even a scintilla of political organization to justify the appellation of *kuo*, 'state', 'country', as opposed to *ti*, 'place', 'locality'.

³ Curiously enough, Ma Huan does not mention the coconut, which formerly provided almost the only food and drink of the people; see Whitehead, p. 64.

⁴ Sakyamuni Buddha.

⁵ Giles, nos. 2620; 7460; 12,724; K has *Ch'u mao hsü* (Giles, nos. 2620; 7693; 4762), 'Ch'u mao island'; S omits the passage. Gerini (p. 386, n. 3) thought that 'Ch'u luan wu' was probably a transliteration of a local name; but Pelliot ('Voyages', p. 404) considered it a Chinese name 'Exposed Testicles shore'.

⁶ Ying ko tsui shan (Giles, nos. 13,304; 6046; 11,905; 9663); we identify this mountain with Namunakuli, 6° 56' 33" N, 81° 06' 35" E, a sharp peak, 6,680 feet high, about 45 miles inland from the east coast of Ceylon; see Appendix 5, The voyage from Kuala Pasai to Beruwala.

⁷ Fo t'ang shan (Giles, nos. 3589; 10,760; 9663); Dondra head, the southernmost point of Ceylon, near which was Devinuvara (Dewandera), the site of a famous temple of Vishnu, destroyed by the Portuguese in 1587 (Gibb, *Ibn Battuta*, p. 365, n. 8).

⁸ Ceylon.

⁹ Giles, no. 9155; 7291; 6870. We take this name to be a transliteration of 'Berbery', and identify the place with Beruwala on the west coast of Ceylon, 29 miles south of Colombo and 6 miles south of Kalutara. See Appendix 5, The voyage from Kuala Pasai to Beruwala.

¹⁰ That is, about 24.4 inches.

¹¹ Sakyamuni Buddha.

¹² The Nicobar and Andaman islands.

print is still preserved. Inside [the foot-print] there is fresh water which never dries; [and] the people all dip their hands in this water and wash their faces and wipe their eyes, saying 'The water of Buddha is pure and untainted.'

On the left-hand side there is a temple of Buddha, which contains the complete¹ body of Shih chia Buddha lying on its side; it is still preserved uncorrupted; [and] the couch on which it rests is made of sinking incense wood, decorated with inlaid precious stones of every kind; it is most beautiful.² They also have a tooth of Buddha and relics of the [once-] living [man] and other such things in the hall. This is precisely the place where Shih chia entered into Nirvana.³

Again, if you go north for forty or fifty *li*,⁴ you reach the city where the king resides.⁵ The king of the country is a man of the So-li⁶ race; he is a firm believer in the Buddhist religion; [and] he venerates the elephant and the cow.

The people take cow-dung, burn it to ashes, and smear it all over their bodies; they do not dare to eat cows; they consume only the milk; [and] if a cow dies, then they bury it.⁷ If a person secretly slaughters a cow, the king's law imposes the penalty of death;⁸ or else [the offender] pays [an amount of] gold as large as a cow's head to redeem the penalty.

¹ *Hun* (Giles, no. 5239), 'confused', used for *hun* (Giles, no. 5231), 'whole, complete'. The *Ming shih* has 'true body'.

² Ma Huan's expression 'in this place' gives no precise indication of the locality. According to Rockhill, the temple with the sleeping Buddha was on Dondra hill (Rockhill, Part II, p. 375, n. 1).

³ Ma Huan was misinformed; Buddha passed away in 483 B.C. at Kusinara in India, 'and in that passing away attained the state of Nirvana'.

⁴ About 13 to 17 miles.

⁵ We presume that Ma Huan is speaking of his latest visit to Ceylon at the end of 1432. If his figures are at all near the mark, the city must be Kotte (Cotta), about 5 miles east of Colombo and 28 miles from Beruwala. The king residing at Kotte was Parakramabahu VI (1412-67); but the northern part of the island was ruled by the Arya-cakravarti (probably Rajput adventurers), residing at Jaffna, and there was also a claimant to the throne, who had secured control of the Highlands (Nicholas and Paranavitana, pp. 307, 311). (Ma Huan does not mention that in 1411 Cheng Ho captured the *de facto* ruler Alagakkonara (Ya-lieh-k'u-nai-erh) and carried him off to China; for which see Nicholas and Paranavitana, pp. 302-4.)

⁶ By frequent intermarriages, the Sinhalese kings were almost as closely allied to the kings of Chola and Pandya as to the blood of the Sinhalese royal line (J. E. Tennent, *Ceylon* (London, 1859), vol. 1, p. 417).

⁷ It is the Hindus who particularly venerate the cow (V. A. Smith, *The Oxford History of India* (3rd ed., Oxford, 1958), p. 52).

⁸ Ibn Battuta confirms that in this part of the country the penalty for slaughtering a cow was death, according to 'the Hindu law which obtained there' (M. Husain, *The Rehla of Ibn Battuta* (Baroda, 1953), p. 219).

The Country of Hsi-lan

In the king's domain, both the great personages and the common folk each morning take cow-dung, mix it thin with water, and smear it all over the surface of the ground underneath the house; [and] after that they worship Buddha. Both hands are stretched out straight in front of them, both legs are extended straight behind them, and both breast and stomach are glued to the ground—and [so] they perform their worship.¹

At the side of the king's residence, there is a large mountain which penetrates high into the clouds;² on the summit of the mountain [Page 36] there is the single imprint of a man's foot, which goes two *ch'ih*³ deep into the rock and has a length of more than eight *ch'ih*;⁴ [and] they say that it is the foot-print of a holy man [named] A-tan,⁵ ancestor of mankind, that is, P'an Ku.⁶

The interior of this mountain produces red *ya-ku*, blue *ya-ku*, yellow

¹ Ma Huan confuses Hindu with Buddhist worship. Like other Chinese writers, he uses the word 'Fo' (Giles, no. 3589; ancient pronunciation 'But'), not in the literal sense of 'Buddha', but as 'an image of a god'. Before him, Chao Ju-kua employed the name to designate every kind of divinity, and even Muhammad himself. After him, Huang Sheng-tseng called Isma'il (Ishmael) an 'ancient Fo'. Indeed, a 'Fo' might even be a rough stone (L. Cadière, *Croyances et pratiques religieuses des Vietnamiens* (Saigon, 1955), p. 96). There is some excuse for confusion; but the relationship between Hinduism and Buddhism constitutes a vast subject, and we must be content with the following notes: (1) in Ceylon the *dewale* or Hindu shrine was often a part of the *wihara* or Buddhist temple (H. Williams, *Ceylon* (London, 1950, reprinted 1956), p. 36), and there may be a doubt whether a temple is Buddhist or Hindu (Le May, p. 53); (2) in India a host of Hindu gods continued to receive homage from people who had become followers of the Buddha (S. Paranavitana, *The God of Adam's Peak* (Ascona, 1958), p. 71); (3) in all the southern countries professing Hinayana Buddhism there are temples where the image of Buddha is worshipped more or less in the Hindu fashion (T. R. V. Murti, 'Hinduism and Buddhism', in K. A. N. Sastri (ed.), *Traditional Cultures in South-East Asia* (Bombay, 1958), p. 217); (4) in India Buddhists introduced Hindu practices into their own system with the result that there was scarcely any difference between Buddhism and Hinduism (Sri Devapriya Valisinha, 'Buddhism in India', in R. de Berval (ed.), 'Présence du Bouddhisme', *France-Asie*, vol. xvi, nos. 153-7 (Saigon, 1959) p. 883).

² The large mountain is Adam's Peak, 7,353 feet high. This 'king's residence' was presumably at Gampala (Gampola), about 77 miles east of Colombo; compare Williams, p. 76.

³ That is, 24.4 inches. S has 1 *ch'ih*, and K 3 *ch'ih*.

⁴ C and K have 8 *ch'ih*, 97.9 inches; S has 8 *chang*, 81 feet 7 inches. The true length is 5 feet 7 inches and the breadth 2 feet 7 inches at the ball of the foot. The indentation on the summit of Adam's Peak has been venerated as the footprint of the Buddha by the Buddhists, of Adam by the Muslims, and of Siva by the Hindus. For a historical account of the footprint and an appreciation of its significance see Paranavitana, pp. 11-23.

⁵ Giles, nos. 1; 10,620a, 'Adam'; Ma Huan accepts the Muslim tradition that the indentation was the footprint of Adam.

⁶ Giles, nos. 8620; 6188; a legendary being said to have been developed from chaos, and to have assisted in the formation of the universe.

ya-ku, blue *mi-lan* stones, *hsi-la-ni*, *k'u-mo-lan*,¹ and other such [stones]; they have each and every precious stone. Whenever heavy rain occurs, the water rushes out of the earth and flows down amidst the sand; they search for and collect [the stones], and that is how they get them. There is a common saying that the precious stones are in truth the crystallized tears of Buddha their patriarch.

In the sea there is a stretch of snow-white floating sand; when the sun or moon shines on the sand, it sparkles brilliantly like ripples on the water; [and] every day the pearl-oysters collect together on the sand. The king has constructed a pearl-pond; [and] once in two or three years he orders men to take pearl-oysters and pour them out into the pond; he sends men to guard over this pond; they wait until the [pearl-oysters] are decayed and rotten, then with water they scour out the pearls, and take them to the officials; [but] it also happens that they are stolen and sold in other countries.²

The territory of the country is extensive, and the people numerous—second only to Chao-wa.³ The populace have an abundance of supplies.

The men, as regards the upper [part of the] body, have bare shoulders; [and] around the lower part [they wear] a coloured silk kerchief, to which they add a waist-band. The whole body is shaved clean of all traces of hair;⁴ they keep only the hair on the head, [and] they use a white cloth to bind round the head. If [a man's] father or mother dies, he does not shave his beard; this is the rite of filial duty.

The women dress the hair in a chignon at the back of the head; [and] they surround the lower part [of the body] with a white cloth.

The newly-born boys have the head shaved; [but] girls retain the hair

¹ Red *ya-ku* means a ruby, blue *ya-ku* a deep blue sapphire or corundum of the first quality, and yellow *ya-ku* a yellow corundum or sapphire known to jewellers as Oriental topaz. The *mi-lan* (Giles, nos. 7802; 6732) is no doubt the *ni-lan* (Giles, nos. 8211; 6732) of T'ao Tsung-i, a pale blue sapphire of medium quality; Ibn Bartuta called it *nailam*, the Persian equivalent for the Hindi word *nilam* derived from Sanskrit *nila*, 'blue'.

The *hsi-la-ni* (Giles, nos. 4105; 6653; 8197), 'of Ceylon', has not been identified; it had a dark red colour. The *k'u-mo-lan* (Giles, nos. 6276; 8016; 6732), T'ao's *ku-mu-lan*, is an unidentified stone of 'red-black-yellow' colours; Bretschneider suggested it might be an opal, but this stone does not appear to be found in Ceylon (compare Williams, p. 364). See Husain, p. 220, and Bretschneider, vol. 1, pp. 174-5, quoting from ch. vii, f. 5 v of the *Cho-keng lu*, 'Records [written] while the Plough rests', composed by T'ao Tsung-i in 1366.

² The main pearl-banks lie off the north-west of Ceylon in the Gulf of Mannar (Williams, p. 366). The king who controlled the pearl-fishery was the Arya-cakravarti of Jaffna, who was overcome by King Parakramabahu VI of Kotte in 1450 (Nicholas and Paranavitana, pp. 296, 311). On pearls see Wheatley, 'Commodities', pp. 89-90.

³ Java. Kung Chen adds that the people were very wealthy.

⁴ S and K mention that the hair on the temples, the beard, and moustache were also shaved off.

The Country of Hsi-lan

with which they were born; it is not shaved off, and accordingly it is kept [*Page 37*] until they are grown up.

They never eat their rice without butter and cow's milk; [and] when people wish to eat their rice, they eat privately in a secluded place, without letting [other] people see them. In everyday life areca-nut and betel-leaf are never out of their mouths.

Rice and grain, sesame, and lentils—all these they have; but they have neither barley nor wheat.¹ The coconut is very abundant; oil, sugar, and wine are all manufactured from this article for human consumption.

When people die, they are cremated, and the bones are buried. When there is a funeral in a family, the wives of the relations and friends assemble, and all together, with both hands, strike their breasts and wail and lament, in accordance with their rites.

For fruits, they have bananas, jack-fruit, and sugar-cane; gourds, vegetables, oxen, goats, fowls, and ducks—all these they have.

The king makes coins of gold, [and] these are in current use; each coin weighs, on our official steelyard, one *fen* six *li*.²

The musk, hemp-silk, coloured silk-taffeta, blue porcelain dishes and bowls, copper coins,³ and camphor⁴ of the Central Country are very much liked; and so they take precious stones and pearls to give in exchange.

The king⁵ constantly sends men with offerings of precious stones and other such things; they accompany the treasure-ships returning from the [Western] Ocean and bring tribute to the Central Country.

¹ Literally, 'the two wheats, great and small'.

² All three texts give this weight, which was equivalent to 9.20 grains or 0.019 ounce troy weight. If the gold was pure, the present-day value of the gold content would be 4s. 9d. The Chinese writers do not state the name of the coin.

³ Fei Hsin says that the Chinese trade-goods included gold coins, silver coins, and copper coins.

⁴ This is Ma Huan's first reference to camphor, which we presume was the famous 'Barus perfume' obtained in northern Sumatra. On camphor see Wolters, 'Po-ssu', p. 338, and Wheatley, 'Commodities', p. 101. Ma Huan does not mention cinnamon, but his contemporary Conti gives a good account of the tree (Penzer, *Polo*, p. 128).

⁵ Parakramabahu VI (1412-67), reigning at Kotte (Nicholas and Paranavitana, p. 307).

THE COUNTRY OF LITTLE KO-LAN¹

[QUILON]

Setting sail from the jetty named Pieh-lo-li² in the country of Hsi-lan,³ you go north-west; [and] you can reach [this place] after travelling with a fair wind for six days and nights. The country lies beside the sea; on the east it adjoins large mountains; on the west is the great sea; on the south and north the territory is narrow; and beyond [the boundary] there is the great sea again. [The people] dwell close to the sea.

The king of the country and the people of the country are all men of the So-li⁴ [*Page 38*] race. They are firm believers in the Buddhist religion;⁵ [and] they venerate the elephant and the ox.

Marriages, funerals, and other such things are the same as in the country of Hsi-lan.

The land produces sapan-wood and pepper; [but they are] not plentiful. Such things as fruit and vegetables—all these they have.

The oxen and goats are rather different from those produced in other [places]. The goats have black hair and long legs, sometimes two *ch'ih* or three *ch'ih* in height.⁶ The yellow oxen sometimes weigh three or four hundred *chin*.⁷

Butter is sold in great quantities; the people eat two meals a day; [and] all use butter to mix with their rice when they eat.

The king uses gold to cast coins; each coin weighs one *fen*⁸ on our official steelyard; [and the coins] are in general use.

¹ Giles, nos. 4294; 6069; 6721; 'Little Kolan', the second word representing the sound of the Malayalam name Kollam (an abbreviation of Koyilagam, 'King's house'), modern Quilon; the territory was roughly equivalent to the former state of Travancore, on the west coast of India; the port of Quilon, 8° 53' N, 76° 35' E, lies in the present-day state of Kerala. Once a great political and commercial centre, Quilon was still a place of some importance in the time of Ma Huan, but its trade was declining, and Ma Huan's account is scarcely longer than that of Marco Polo. For Quilon see Hsiang Ta, *Kung Chen*, pp. 24-5; Fei Hsin, ch. 1, pp. 31-2 (Rockhill, Part II, pp. 447-8); *Ming shih*, p. 7921, row 1; Penzer, *Polo*, pp. 134-5; Yule and Burnell, p. 751a; K. P. P. Menon, *History of Kerala*, vol. 1 (Ernakulam, 1924), pp. 270-1.

² Beruwala (Barberyn).

³ Ceylon.

⁴ The Chola dynasty was overthrown in 1279, but the name 'Chola' persisted. In the time of Ibn Battuta (1347), the 'heathen' (that is, Hindu) king was called Tirawari, that is, *tiwari*, a sub-caste of the Brahmans (Husain, p. 193). The people were Malayalis, speaking Malayalam.

⁵ Ma Huan is mistaken; they were Hindus. Apart from rare pockets, Buddhism had disappeared from India by the thirteenth century (Sri Devapriya Valisinha, 'Buddhism in India', in de Bernal, 'Présence du Bouddhisme', p. 882).

⁶ The equivalent of 2 *ch'ih* was 24.4 inches.

⁷ The equivalent of 300 *chin* was 394.6 pounds avoirdupois. The word 'hundred', omitted in C is supplied from S and K.

⁸ That is, 5.75 grains or 0.01199 ounce troy. If the gold was pure, the present-day

The Country of Little Ko-lan

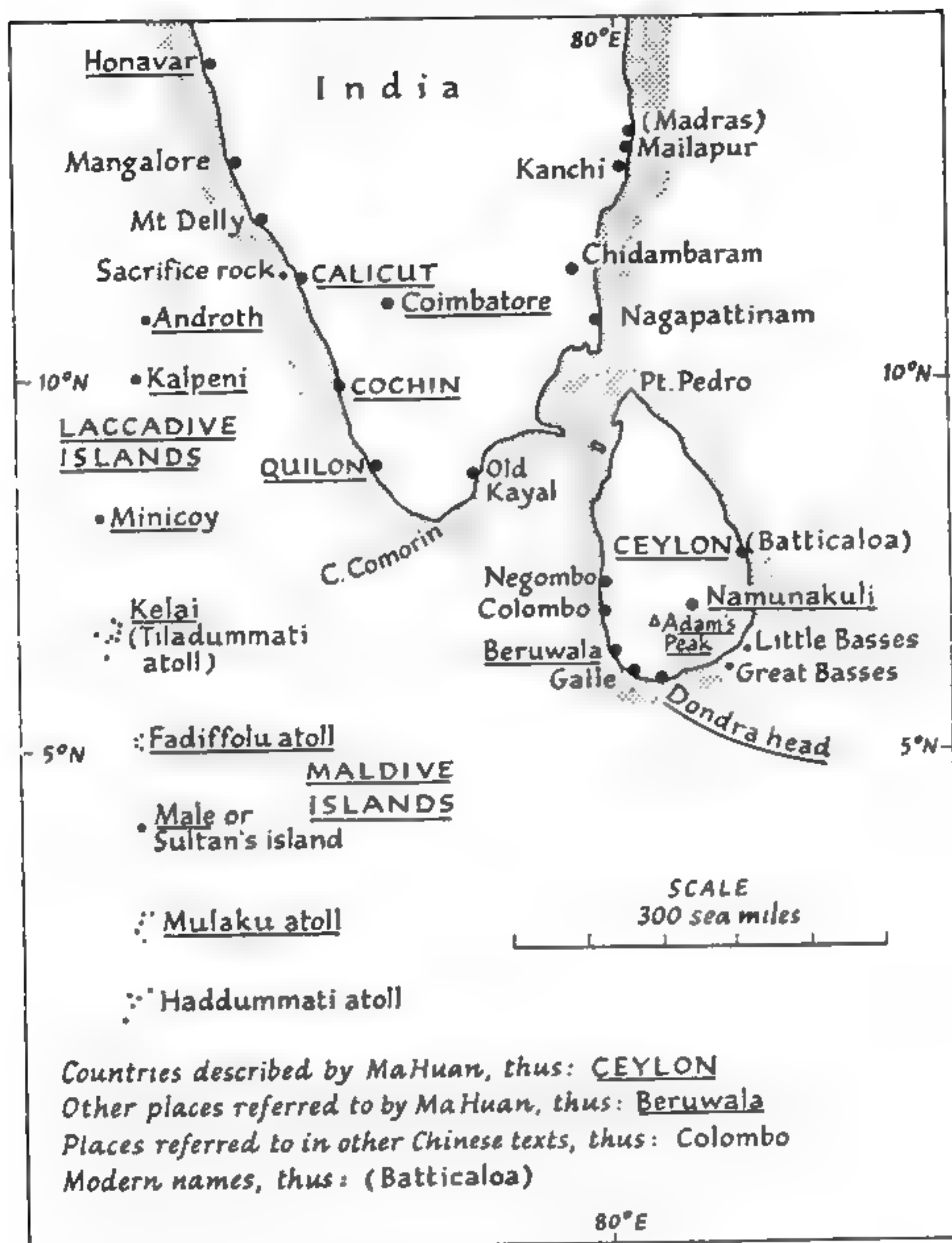


Fig. 4. Map of southern India

Ying-yai sheng-lan chiao-chu

Although it is a small country, this king, too, takes local products and sends men to bring them as tribute to the Central country.

THE COUNTRY OF KO-CHIH¹

[COCHIN]

Setting sail from the country of Little Ko-lan² and following the mountains in the direction of north-west, you travel with a fair wind for one day and night; [and], when you reach the country, the ship is moored in the anchorage. To the east of this country there are large mountains; on the west it abuts on the great sea; [and] on the south and north it lies beside the sea. There is a road by which you can go to neighbouring countries.

The king and the people of the country are also men of the So-li³ race. [The king] binds his head with a yellow and white cloth; on the upper [part of the body] he wears no clothing; [and] round the lower [part he has] a kerchief of hemp-silk.⁴ He also wears a piece of coloured hemp-silk wound round the waist; this is called a 'waist-band'.

The clothes worn by the chiefs and the rich people are much the same as those of the king.

As to the houses in which the people [*Page 39*] live: to construct them they use coconut-trees; and to cover them they use coconut-leaves woven into strips, like thatch,⁵ through which the rain cannot leak. Every family uses a storehouse built of layers of bricks and mud; [these storehouses] differ only in size; [and] any delicate and precious articles which [the people] have are all placed inside [these storehouses], in order to guard against fire and theft. The country contains five kinds of people.

value of the gold content would be 2s. 11d. 'One *fen*' is the reading of S and of Kung Chen; C has 'two *fen*'; K is silent. Fei Hsin states that the gold *t'ang-ch'ieh*, *tanka*, weighed 8 *fen*, that is, 46.0 grains, and that the small gold *pa-nan*, *funam*, weighed 1/40 of a *tanka*, that is, 1.1 grains; but Ferrand thought that Fei Hsin should have written '1/14' instead of '1/40'. The right of coinage being the universal symbol of sovereignty in Asia, Ma Huan's statement proves that at this time Quilon was an independent state.

¹ Giles, nos. 6039; 1875; the Chinese name is a transcription of the Malayalam name Kochchi, 'a small place'; Cochin, 9° 58' N, 76° 14' E, lies in the state of Kerala. A famous city at a later date, it possessed no importance in the fifteenth century, but it had a fine harbour, and was the best port linked with the pepper-producing districts. For Cochin see Hsiang Ta, *Kung Chen*, pp. 25-7; Fei Hsin, ch. 1, pp. 32-3 (Rockhill, Part II, p. 452); *Ming shih*, p. 7920, row 4; Penzer, *Polo*, p. 135; Yule and Burnell, p. 225 b; F. S. Davies, *Cochin* (London, 1923) for plans; Menon, vol. 1, pp. 160-7; Serjeant, p. 12.

² Quilon. The distance to Cochin is 70 miles.

³ A king named K'o-i-li (Koyil?) was formally instituted by Cheng Ho during the course of his fourth expedition (1413-15), but we cannot be sure that he was the king to whom Ma Huan refers.

⁴ C has 'hemp-silk'; S has 'white cloth'; K has 'coloured silk'.

⁵ K omits sixteen characters in this description.

The Country of Ko-chih

The first kind are named Nan-k'un;¹ [they belong to] the same rank as the king;² some of them shave the head and hang a thread at the neck;³ they form the most honourable order.

The second kind are the Muslims.

The third kind of people are named Che-ti;⁴ they are the moneyed property-owners.

The fourth kind of people are named Ko-ling;⁵ they specialize in acting as brokers for people.

The fifth kind of people are named Mu-kua;⁶ the Mu-kua are the lowest of men; right down to the present day this class have lived by the side of the sea; the eaves of their dwellings do not exceed three *ch'ih*⁷ in height, [and] it is an offence to have them higher.

The clothing which they wear does not go beyond the navel at the top and does not go beyond the knee at the bottom; [and], when they go out on to the road, if they meet a man of the Nan-k'un or Che-ti [class], they prostrate themselves on the ground and wait until he has passed by, then

¹ Giles, nos. 8128; 6536; or in some Chinese texts *Nan-p'i* (Giles, nos. 8128; 9050). The reading *Nan-k'un* appears in C and S, also in Huang Sheng-tseng and the *Ming shih*, and it is favoured by Feng Ch'eng-chün. The reading *Nan-p'i* is given in K, also in Chao Ju-kua, Chang Sheng, Fei Hsin, and Kung Chen. Pelliot preferred this reading, and it is accepted by the great French scholars (Professor E. Gaspardone; private communication). After much hesitation, Pelliot concluded that the designation probably referred to the Namburi Brahmans (Pelliot, 'Voyages', p. 405; 'Encore', p. 221), and this view was supported by Menon (vol. 1, p. 163, n. 3). The Namburi Brahmans or Nambutiris were, according to tradition, brought into Kerala to people the country, and they form the landed aristocracy (Menon, vol. III, pp. 57-9). According to the Tamil lexicon, *nampi* means 'the élite among men', and the editor suggests that the correct reading is *nan-p'i*, that the term represents some such Tamil word as *nampi*, 'the élite', and that it was applied to the country ruled by such an élite, just as the expression *P'o-lo-men* was applied to the west coast of India, the country ruled by Brahmans (see Hirth and Rockhill, pp. 7, 97). It would seem that by 'Nan-p'i' Ma Huan understood the upper classes, consisting of Brahmans and Kshatriyas.

² There were four classes (*varna*), namely, Brahmans (the learned order), Kshatriyas (the fighting and governing classes), Vaisyas (the trading and agricultural people), and Sudras (the common folk); see Smith, pp. 62-4. The Cochin Rajah belonged to the Kshatriya class (K. V. K. Ayyar, *The Zamorins of Calicut* (Calicut, 1938), p. 239, n. 1). No doubt Ma Huan failed to appreciate the distinction between Brahman and Kshatriya.

³ Ma Huan refers to the sacred thread with which a Brahman is invested in his seventh year; it is this that makes him a Brahman (Menon, vol. III, p. 100).

⁴ Giles, nos. 553; 10,956; 'Chetty', a member of any of the trading castes in southern India (Yule and Burnell, p. 189b).

⁵ Giles, nos. 6073; 7199; 'Kling', the name applied in Malaysia to the people of southern India, and as a rule restricted to Tamils (Yule and Burnell, p. 487b); no doubt Ma Huan did not differentiate between Tamils and Malayalis.

⁶ Giles, nos. 8077; 6281; the Mucoa or Mukuva (Malayalam, *mukkuvan*, 'a diver') were fishermen and porters (Yule and Burnell, p. 592a; Menon, vol. III, pp. 460-1).

⁷ The equivalent of 3 *ch'ih* was 36.7 inches.

they get up and walk on.¹ The Mu-kua class make their living, in particular, by fishing, and gathering firewood, and carrying burdens, in pairs or singly, with a pole; [and] the officials do not permit them to wear long clothes.

The transactions of buying and selling are carried out in the same manner as among the Han people of the Central Country.

The king of the country is a firm believer in the Buddhist religion;² [and] he venerates the elephant and the ox. He has erected a temple of Buddha; [Page 40] the image of Buddha³ is cast in brass, and it has a dais built of layers of lapis lazuli; all round the edge of Buddha's dais a water-course has been built; and close by a well has been dug.

Every day at dawn bells are sounded and drums beaten, and they draw water from the well and sprinkle it again and again over the head of Buddha. The congregation all line up in rows to worship, and [then] retire.

In addition, they have a kind of people called Cho-chi;⁴ they are sages, [but] they also have wives and children. [Men of] this class, from [the time when] they emerge from their mother's womb, never shave the hair, and never even comb it; [but] they take the hair, rub it between the hands with butter and other such things and twist it into strands—sometimes more than ten, sometimes seven or eight [strands]—which are spread out and trail down behind the head; then they take the dung of yellow oxen, burn it to a white ash, and spread it all over the body.

Both on the upper and lower [part of the body] they wear no clothes; they merely take a yellow rattan as large as [one's] thumb, and bind it tightly round the waist with two turns, adding [a piece of] white cloth as a slip.⁵

In their hands they grasp a large sea-shell, and they blow it continuously as they walk along. Their wives use a scanty cloth to cover their nakedness; [and] they walk along following their husbands. This class of people are devotees. If they come to a man's house, he gives them money, rice, and other such things.

¹ On the lowest castes (pariahs, pullers, and puliahs) see J. A. Dubois, *Hindu Manners, Customs and Ceremonies* (third edition, Oxford, 1906; reprinted 1953), pp. 48–61; even in 1905 the puliah was forbidden to approach within 20 yards of a person of higher caste; but the worst aspects of untouchability are now being removed (Smith, p. 68).

² Ma Huan is mistaken; the king was a Hindu.

³ C has *hsien hsiang* (Giles, nos. 4449; 4288), 'image of the immortal', hence Duyvendak translated 'the image of that god' (Duyvendak, *Ma Huan*, p. 49).

⁴ The first character is Giles, no. 2409; the second character is not in the dictionaries and we presume that it had the same sound as Giles, no. 786, *chi*. S has Giles, no. 839, *chi*. Ma Huan refers to the Jogis, Siva-worshipping ascetics, who have been called miracle-workers, conjurers, and acrobats. See Yule and Burnell, p. 461a; Dubois, pp. 528–38; Menon, vol. III, pp. 642–9. Menon emphasizes the accuracy of Ma Huan's account.

⁵ *Shao tzu* (Giles, nos. 9758; 12,317); literally, 'twig'; Pelliot explained that the phrase often meant a *cache-sexe* (Pelliot, 'Voyages', p. 406).

The Country of Ko-chih

The climate of this country is always warm, like summer, and there is no frost or snow.

Every [year], when you come to the second or third moon, one or two showers of rain fall during the day and night, and the foreigners all put the roofs of their houses in order and prepare their food supplies; when you come to the fifth or sixth moon, the rain falls in torrents during the day and night, the market-streets become rivers, people cannot walk about, [and] great personages and little people sit and wait until the rainy season is over; then it clears in the seventh moon; and after the middle of the eighth moon the fine weather sets in, and not a drop of rain falls in the winter; [Page 41] this continues till the second or third moon of the next year when rain falls once more.

The common saying 'half the year is rainy, half the year is fine' is correctly [applied to] this place.

The land has no other product, [but] produces only pepper. The people mostly establish gardens to cultivate pepper for a living. Every year when the pepper is ripe, of course, big pepper-collectors of the locality make their purchases and establish warehouses to store it; [then] they wait until the foreign merchants from various places come to buy it.

When arranging the price they calculate by the *po-ho*;¹ each one *po-ho* equals twenty-five *feng-la*² on the foreign steelyard; [and] each one *feng-la* equals ten *chin* on the foreign steelyard; this is calculated as sixteen *chin* on our official steelyard; [thus] each one *po-ho* equals four hundred *chin* on our official steelyard; [and this quantity of pepper] is sold for either one hundred or for ninety of their local gold coins, worth five *liang* of silver.³

¹ Giles, nos. 9369; 3942; Arabic *bahar*, Malayalam *bharam*, from Sanskrit *bhara*, 'a load'; the Arabs adopted the weight and the name, and spread it throughout Asia (Yule and Burnell, p. 476; de Campos, p. 126; Boxer, p. 128, n. 1).

² Giles, nos. 3582; 6653; probably a shortened form of *feng-la-shih*; Arabic *farsala*, whence *frazala*, *frazil*, and like forms of European writers; see Yule and Burnell, p. 3586, and Pelliot, 'Voyages', pp. 406-8. Feng follows S; C wrongly writes '250 *feng-la*'. The *farsala* was a unit into which the *bahar* was normally subdivided. The terms 'farasula', 'frasla', and 'farasala' are still found in Eritrea, Somalia, and Oman, respectively.

³ To summarize: 1 *po-ho* of pepper equalled 25 *feng-la* or 250 Cochin *chin* or 400 Chinese *chin* or 526.22 pounds avoirdupois. This was sold for 90 or 100 gold coins worth 5 *liang* of silver. The figure of 90 gold coins is that accepted by Ma Huan when discussing the price of pearls below. At present 5 *liang* (5.9959 ounces troy) of silver would be worth 55s. 11d.; thus, based on the present value of silver, the price of pepper at Cochin was 1.27d. a pound; this is 25 per cent more than at Semudera. The gold *fanam* of Cochin, as Ma Huan states below, was 90 per cent pure and weighed 1 *fen* 1 *li* or 0.013191 ounce troy; thus the gold content weighed 0.011872 ounce troy, and the gold content of 90 coins weighed 1.0684 ounces troy and would now be worth £13 7s. 1d.; thus, based on the present value of gold, the price of pepper at Cochin was 6.09d. a pound.

The people called 'Che-ti' are all property-owners; they specialize in purchasing such things as gem-stones, pearls, and aromatic goods; [then] they wait until visitors from the gem-ships of the Central Country or from foreign ships of different countries come to buy.

In purchasing pearls they reckon the price according to the number of *fen*¹ [which they weigh]. Thus [in the case of] pearls, every one which weighs three and a half *fen* is sold for one thousand eight hundred of their local gold coins, worth one hundred *liang* of silver.²

[In the case of] coral-stems, the Che-ti reckon the weight in *chin*³ when they purchase them; they hire craftsmen who cut up [the stems] into pieces, and on a lathe fashion them into beads, which are washed and polished until they are bright and clean; they, too, are bought [according to] their weight in *fen* and *liang*.⁴

The king uses gold of ninety per cent [purity] to cast coins for current use; they are called *fa-nan*;⁵ [each] weighs one *fen* one *li* on our official steelyard.⁶ They also use [Page 42] silver to make coins; [these] are [some-what] larger than the operculum⁷ of a sea-mollusc; and each [weighs] four *li* on our official steelyard; they are called *ta-erh*.⁸ Each one gold coin is exchanged for fifteen silver coins;⁹ [and] for petty transactions in the market-streets they use these [latter] coins.

¹ Giles, no. 3506; one *fen* equalled 5.75 grains or 0.0119 ounce troy.

² Thus a pearl weighing $3\frac{1}{2}$ *fen* (20.14 grains or 5 carats) was sold for 1800 gold coins, worth 100 *liang* (119.91 ounces troy) of silver. If the silver was pure, its present value would be £55 19s. 2d. The gold content of 1800 Cochin *fanam* weighed 21.3696 ounces troy, and would have a current value of £267 2s. 4d.

³ A Chinese *chin* equalled 1.31 pounds avoirdupois.

⁴ A Chinese *liang* equalled 1.31 ounces avoirdupois.

⁵ Giles, nos. 3366; 8128, transliterating *fanam*, for which see Yule and Burnell, p. 348a. K omits the details concerning the gold and silver coins. Since the king minted his own coins we presume that he was an independent sovereign.

⁶ That is, 6.33 grains or 0.013191 ounce troy. The gold content weighed 0.011872 ounce troy, and would now be worth 2s. 11d. C has 1 *fen* 2 *li*, which is corrected by both Pelliot ('Voyages', p. 409) and Feng.

⁷ *Yen* (Giles, no. 13,041), 'the part below the belly of a crab'; Pelliot thought that Ma Huan referred to the round plate (operculum) with which gasteropods block the entrance to their shell (Pelliot, 'Voyages', p. 409; 'Encore', p. 221). C and S have *yen* (Giles, no. 13,000), 'a spot on the face', which is changed by Feng without notifying the reader.

⁸ Giles, nos. 10,481; 3333, transliterating *tar* or *tare*, for which see Yule and Burnell, p. 901a under heading 'tara'. As 4 *li* equalled 2.30 grains or 0.00479 ounce troy, the silver content of the coin, if the silver was pure, would now be worth 0.53d. As will be seen from the next note, the silver content weighed 3.7 *li*, and would be worth 0.49d.

⁹ Ma Huan has stated that the gold *fanam* was 90 per cent pure, but he does not mention the purity of the silver *tar*; however, from the information which he gives about the price of pepper, we can calculate the ratio between the value of gold and silver, and also the purity of the silver in the *tar*. He states that 90 *fanam*, each 90 per

The Country of Ko-chih

As to the marriage- and funeral-rites of the people in the country: all the people in each of the five classes follow their own forms and there is no uniformity.

Husked and unhusked rice,¹ hemp, pulse, glutinous millet, and panicked millet—all these they have; only they have no barley or wheat.² Elephants, horses, oxen, goats, dogs, cats, fowls, and ducks—all these they have; only they have no donkeys, mules, and geese.

The king of this country, too, sends chiefs who accompany the treasure-ships on their return from the [Western] Ocean, bringing local products to be offered as tribute to the Central Country.

THE COUNTRY OF KU-LI³

[CALICUT]

[This is] the great country of the Western Ocean.

Setting sail from the anchorage in the country of Ko-chih,⁴ you travel north-west, and arrive [here] after three days. The country lies beside the sea. [Travelling] east from the mountains for five hundred, or seven hundred, *li*, you make a long journey through to the country of K'an-pa-i.⁵ On the west [the country of Ku-li] abuts on the great sea; on the south it joins the

cent pure and weighing 1 *fen* 1 *li*, had the same value as 5 *liang* of silver; that is, 891 *li* of gold had the same value as 5,000 *li* of silver, so that the value of gold was 5.61 times the value of silver, if the silver was pure. Again the *fanam* contained 9.9 *li* of gold; so that the 15 *tar* contained 55.53 *li* of silver; and as the 15 *tar* weighed 60 *li*, the purity of the silver in the *tar* was 92.5 per cent.

¹ *Su* (Giles, no. 10,340) at that date meaning 'unhusked rice'; at a later date, as explained by Shu Hsin-Ch'eng, quoting Li Shih-chen (1596), the name was applied to a fine variety of *liang* (Giles, no. 7023), 'the common spiked millet or canary seed'; at a still later date the name was used to denote the American maize. The editor is indebted to Professor Homer H. Dubs for making extensive researches on this point.

² Literally, 'the two wheats, great and small'.

³ Giles, nos. 6188; 6870; the Chinese name is a transliteration of the local name Kolikkotu, meaning 'the fortified palace' of the ruler, entitled Zamorin; Calicut or Kozhikode, 11° 15' N, 75° 46' E, lies in the State of Kerala; in Ma Huan's time the ruler's political importance was merely local, but Calicut constituted a great emporium of trade frequented by merchants from all quarters. For Calicut see Hsiang Ta, *Kung Chen*, pp. 27-32; Fei Hsin, ch. 1, pp. 34-5 (Rockhill, Part II, pp. 461-2); *Ming shih*, p. 7920, row 3; Penzer, *Polo*, p. 135; Yule and Burnell, p. 148a; Menon, vol. 1, pp. 227-39; Ayyar, pp. 83, 127-37; K. A. N. Sastri, *A History of South India* (2nd ed., Madras, 1958), p. 260. (The history of Kerala is very fragmentary and confused, and few noteworthy events can be dated.)

⁴ Cochin. The distance to Calicut is 80 miles; Ma Huan made a very slow voyage.

⁵ Huang Sheng-tseng (ch. III, f. 3v) gives the full form of the name as 'K'an-pa-i-t'i' (Giles, nos. 5870; 8510; 5397; 11,018), which Pelliot ('Voyages', p. 410) identified with Koyampadi, modern Coimbatore, situated in about 11° N, 77° E, 76 miles nearly due east of Calicut. In giving the distance as 500 *li*, nearly 200 miles, Ma Huan was guilty of an exaggeration.

boundary of the country of Ko-chih; [and] on the north side it adjoins the territory of the country of Hen-nu-erh.¹

'The great country of the Western Ocean' is precisely this country.

In the fifth year of the Yung-lo [period] the court ordered² the principal envoy the grand eunuch Cheng Ho and others to deliver an imperial mandate to the king³ of this country and to bestow on him a patent conferring a title of honour, and the grant of a silver [Page 43] seal, [also] to promote all the chiefs and award them hats and girdles of various grades.

[So Cheng Ho] went there in command of a large fleet of treasure-ships, and he erected a tablet with a pavilion over it and set up a stone which said 'Though the journey from this country to the Central Country is more than a hundred thousand *li*, yet the people are very similar, happy and prosperous, with identical customs. We have here engraved a stone, a perpetual declaration for ten thousand ages.'⁴

The king of the country is a Nan-k'un⁵ man; he is a firm believer in the Buddhist religion;⁶ [and] he venerates the elephant and the ox.

The population of the country includes five classes, the Muslim people, the Nan-k'un people, the Che-ti people, the Ko-ling people, and the Mu-kua people.

The king of the country and the people of the country all refrain from eating the flesh of the ox.⁷ The great chiefs are Muslim people; [and] they all refrain from eating the flesh of the pig.⁸ Formerly there was a king who made a sworn compact with the Muslim people, [saying] 'You do not eat the ox; I do not eat the pig; we will reciprocally respect the taboo';⁹ [and this compact] has been honoured right down to the present day.

¹ Giles, nos. 3904; 8387; 3333; identified by Pelliot ('Voyages', pp. 410-11) and Feng with Honore (Onore), now called Honavar, situated in 14° 16' N, 74° 27' E; it is on the coast, 199 miles northward from Calicut. See Yule and Burnell, p. 422a.

² The order was made in October 1407; but, although in nominal command of this, the second expedition, Cheng Ho did not accompany it (Duyvendak, 'Dates', pp. 364, 371).

³ A new king, Ma-na Pi-chia-la-man, Mana Vikraman, had evidently succeeded since Cheng Ho was at Calicut in 1406-7 during the course of his first expedition (Duyvendak, 'Dates', p. 359).

⁴ *Yung shih wan shih* (Giles, nos. 13,504; 9953; 12,486; 9969). For the second character, C and K have *lo*; hence Duyvendak (*Ma Huan*, p. 51) translated 'May the period Yung-lo last for ever'; Feng preferred the reading *shih*, which appears in the *Hsi-yang chi*.

⁵ Probably Ma Huan wrote 'Nan-p'i' and meant the upper classes consisting of Brahmans and Kshatriyas.

⁶ Ma Huan is mistaken; the king was a Hindu.

⁷ Detestation of cow-slaughter is the most prominent outward mark of Hinduism (Smith, p. 52).

⁸ It is noteworthy that a Hindu ruler was employing Muslims as great officers.

⁹ Feng here adopts the reading of S; since it was the king who made the compact, it would seem reasonable to prefer C, 'You do not eat the pig; I do not eat the ox'; thus, they agreed to respect each others' convictions in the matter of diet. It scarcely needs to be said that the pig is anathema to Muslims.

The Country of Ku-li

The king has cast an image of Buddha in brass; it is named Nai-na-erh;¹ he has erected a temple of Buddha and has cast tiles of brass and covered the dais of Buddha with them; [and] beside [the dais] a well has been dug. Every day at dawn the king goes to [the well], draws water, and washes [the image of] Buddha; after worshipping, he orders men to collect the pure dung of yellow oxen;² this is stirred with water in a brass basin [until it is] like paste; [then] it is smeared all over the surface of the ground and walls inside the temple. Moreover, he has given orders that the chiefs and wealthy personages shall also smear and scour themselves with ox-dung every morning.

He also takes ox-dung, burns it till it is reduced to a white ash, and grinds [Page 44] it to a fine powder; using a fair cloth as a small bag, he fills it with the ash, and regularly carries it on his person. Every day at dawn, after he has finished washing his face, he takes the ox-dung ash, stirs it up with water, and smears it on his forehead and between his two thighs—thrice in each [place]. This denotes his sincerity in venerating Buddha and in venerating the ox.

There is a traditional story that in olden times there was a holy man named Mou-hsieh,³ who established a religious cult; the people knew that he was a true [man of] Heaven, and all men revered and followed him. Later the holy man went away with [others] to another place, and ordered his younger brother named Sa-mo-li⁴ to govern and teach the people.

[But] his younger brother began to have depraved ideas; he made a casting of a golden calf and said 'This is the holy lord; everyone who worships it will have his expectations fulfilled.' He taught the people to listen to his bidding and to adore the golden ox, saying 'It always excretes gold.' The people got the gold, and their hearts rejoiced; and they forgot the way of Heaven; all took the ox to be the true lord.

Later Mou-hsieh the holy man returned; he saw that the multitude, misled by his younger brother Sa-mo-li, were corrupting the holy way; thereupon he destroyed the ox and wished to punish his younger brother; [and] his younger brother mounted a large elephant and vanished.

Afterwards, the people thought of him and hoped anxiously for his

¹ Giles, nos. 8113; 8106; 3333; Vogel suggested that the name might be a corruption of Narayana, a name for Vishnu (Duyvendak, *Ma Huan*, p. 52). All these references to Buddha, then, must be construed as references to a Hindu deity.

² After this passage C becomes defective, containing only 6 characters as compared with the 36 characters of Feng's recension.

³ Giles, nos. 8031; 4363; 'Musa' (Moses). Ma Huan alleges that the incidents occurred at Calicut. Presumably he learnt the story of Aaron and the golden calf from Arab informants. A number of Old Testament characters, including Moses, figure prominently in the Koran.

⁴ Giles, nos. 9523; 8016; 6942; 'Al-Sameri' (the Samaritan), the name appearing in the Koran.

return. Moreover, if it was the beginning of the moon, they would say 'In the middle of the moon he will certainly come', and when the middle of the moon arrived, they would say once more 'At the end of the moon he will certainly come'; right down to the present day they have never ceased to hope for his return.

This is the reason why the Nan-k'un¹ people venerate the elephant and the ox.

The king has two great chiefs who administer the affairs of the country; both are Muslims.

The majority of the people in the country all profess the Muslim religion. There are twenty or thirty temples of worship, [Page 45] and once in seven days they go to worship. When the day arrives, the whole family fast and bathe, and attend to nothing else. In the *ssu* and *wu* periods,² the menfolk, old and young, go to the temple to worship. When the *wei* period³ arrives, they disperse and return home; thereupon they carry on with their trading, and transact their household affairs.

The people are very honest and trustworthy. Their appearance is smart, fine, and distinguished.

Their two great chiefs received promotion and awards from the court of the Central Country.

If a treasure-ship goes there, it is left entirely to the two men to superintend the buying and selling; the king sends a chief and a Che-ti Wei-no-chi⁴ to examine the account books in the official bureau; a broker comes and joins them; [and] a high officer who commands the ships discusses the choice of a certain date for fixing prices. When the day arrives, they first of all take the silk embroideries and the open-work silks, and other such goods which have been brought there, and discuss the price of them one by one; [and] when [the price] has been fixed, they write out an agreement stating the amount of the price; [this agreement] is retained by these persons.

¹ Probably Ma Huan wrote 'Nan-p'i', and referred to the upper classes of Brahmans and Kshatriyas.

² Giles, nos. 10,284 and 12,769; 9 a.m. to 11 a.m., and 11 a.m. to 1 p.m., respectively.

³ Giles, no. 12,606; 1 p.m. to 3 p.m.

⁴ Giles, nos. 12,606; 8373; 837; Duyvendak suggested that the 'Che-ti Wei-no-chi' of the Chinese might be the 'Waligi Chitty' of Valentyn's account of Ceylon; Pelliot accepted the reconstruction 'Waligi', and would connect the word etymologically with the Tamil *valikkar*, Malay *berniaga*, and Portuguese *banyan*, all ultimately derived from Sanskrit *vanij*, 'a merchant'. The Chinese expression, then, would have some such meaning as 'Chetty trader' or 'Chetty broker'. See Duyvendak, *Ma Huan*, p. 53; Yule and Burnell, under 'Banyan', p. 63a; P. Pelliot, 'Les Hoja et le Sayid Husain de l'histoire des Ming', *T'oung Pao*, vol. xxxviii (1948), p. 87, n. 8. Kung Chen writes 'mi-na-fan' for 'wei-no-chi', states that this was the name given to accountants at Calicut, and adds that the man in question was a broker; Kung Chen further notes that 'they wrote out a contract in duplicate, and each [party] kept one [document]'.

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The chief and the Che-ti, with his excellency the eunuch, all join hands together, and the broker then says 'In such and such a moon on such and such a day, we have all joined hands and sealed our agreement with a hand-clasp; whether [the price] be dear or cheap, we will never repudiate it or change it.'

After that, the Che-ti and the men of wealth then come bringing precious stones, pearls, corals, and other such things, so that they may be examined and the price discussed; [this] cannot be settled in a day; [if done] quickly, [it takes] one moon; [if done] slowly, [it takes] two or three moons.¹

Once the money-price has been fixed after examination and discussion, if a pearl or other such article is purchased, the price which must be paid for it is calculated by the chief and the Wei-no-chi who carried out the original transaction; [and] as to the quantity of the hemp-silk or other such article which must be given in exchange for it, goods are given in exchange according to [the price fixed by] the original hand-clasp—[Page 46] there is not the slightest deviation.²

In their method of calculation, they do not use a calculating-plate;³ for calculating, they use only the two hands and two feet and the twenty digits on them; and they do not make the slightest mistake; [this is] very extraordinary.

The king uses gold of sixty per cent [purity] to cast a coin for current use; it is named a *pa-nan*;⁴ the diameter of the face of each coin is three *fen* eight *li* [in terms of] our official *ts'un*;⁵ it has lines⁶ on the face and on the reverse; [and] it weighs one *fen* on our official steelyard.⁷ He also makes a coin of silver; it is named a *ta-erh*;⁸ each coin weighs about three *li*;⁹ [and] this coin is used for petty transactions.

¹ Presumably the goods were unloaded, unless the Chinese left one or two ships behind; at any rate, on the seventh expedition the Chinese stayed only 4 days, from 10 to 14 December 1432, at Calicut.

² This instructive disquisition on administrative procedure illustrates the meticulous care taken to fix the rate of exchange in times prior to the advent of the Europeans.

³ The abacus, a wooden frame in which are fixed a number of beads strung on parallel wires; used by the Chinese for all kinds of arithmetic calculations upon the decimal system; it came into use in late Sung times.

⁴ Giles, nos. 8511; 8128; representing the sound *fanam*. The king was an independent sovereign minting his own coinage; but doubtless, as in 1443, he 'lived in great fear' of Vijayanagar (Abdul Razzak).

⁵ As in K; C and S wrongly write 'steelyard' instead of 'inch'. The diameter of the *fanam*, being 0.38 of the Chinese *ts'un* of 1.22 inches, equalled 0.46 of an English inch.

⁶ Or 'characters'.

⁷ The gold content weighed 3.45 grains or 0.00719 ounce troy, and today would be worth 1s. 9d.

⁸ Giles, nos. 10,485; 3333; representing the sound *tar* or *tare* (*tara*).

⁹ C has '2 *li*'; Feng adopted the reading of S and K, and Pelliot agreed ('Voyages', p. 414). If the silver was pure, the silver content, weighing 0.00359 ounce troy, would today be worth 0.4d.

In their system of weights,¹ each one *ch'ien* on their foreign steelyard equals eight *fen* on our official steelyard; and each one *liang* on their foreign steelyard, being calculated at sixteen *ch'ien*, equals one *liang* two *ch'ien* eight *fen* on our official steelyard.² On their foreign steelyard twenty *liang* make one *chin*, equal to one *chin* nine *liang* six *ch'ien* on our official steelyard.³ Their foreign weight is named a *fan-la-shih*.⁴

The fulcrum of [their] steelyard is fixed at the end of the beam, and the weight is moved along to the middle of the beam; when [the beam] is raised to the level, that is the zero position;⁵ when you weigh a thing, you move the weight forward; and according as the thing is light or heavy, so you move the weight forward or backward.⁶ You can weigh only ten *chin*, which is equivalent to sixteen *chin* on our official steelyard.⁷

In weighing such things as aromatic goods, two hundred *chin* on their foreign steelyard make one *po-ho*, which is equivalent to three hundred and twenty *chin* on our official steelyard.⁸ If they weigh pepper, two hundred and fifty *chin* make one *po-ho*, which is equivalent to four hundred *chin* on our official steelyard.⁹

Whenever they weigh goods, large and small alike, they mostly use a pair of scales for testing comparative weights. As to their system of measurement: the authorities make a brass casting, which constitutes a *sheng*, for current use; the foreign name for it is *tang-chia*-[Page 47] *li*;¹⁰ [and] each *sheng* equals one *sheng* six *ko* [in terms of] our official *sheng*. 'Western Ocean' cloth, named *ch'e li* cloth¹¹ in this country, comes from the neighbouring

¹ K omits 168 characters treating of weights and measurements.

² The gist of this is that 1 *liang* (16 *ch'ien*) of Calicut equalled 1.28 Chinese *liang* or 1.6 ounces avoirdupois.

³ That is, 1 *chin* (20 *liang*) of Calicut equalled 1.6 Chinese *chin* or 2 pounds 1.6 ounces avoirdupois. C wrongly writes '3 *liang*' instead of '20 *liang*' as in S.

⁴ Giles, nos. 3383; 6653; 9951. C wrongly writes *fan-t'ü-shih*; for the first character S writes *fa* (Giles, no. 3366), which Pelliot preferred ('Voyages', p. 408). Ma Huan previously represented the sound by the character *feng*. *Fan-la-shih* means the Arabic *farsala*, the normal sub-division of the *bahar*.

⁵ Following Hsiang Ta's edition of Kung Chen, we place the stop after the expression *ting p'an hsing* (Giles, nos. 11,248; 8620; 4602), 'zero on the steelyard, at which the weight is placed before the thing to be weighed is attached'.

⁶ This last paragraph occurs only in S.

⁷ That is, 21 pounds avoirdupois.

⁸ That is, 420.9 pounds avoirdupois. The *bahar* (Chinese *po-ho*) had a different value for different kinds of merchandise (Yule and Burnell, under 'Bahar', p. 47b).

⁹ That is, 526.2 pounds avoirdupois.

¹⁰ Giles, nos. 10,719; 1171; 6942; the expression has not been explained; 1 *tang-chia-li* contained 1.7 litres or 3 pints. Ma Huan here provides an example of the 'royal measures' such as are referred to in Indian inscriptions; see Sastri, *South India*, pp. 327-8.

¹¹ Giles, nos. 582; 6942; this name for 'Western Ocean' cloth has not been satisfactorily explained; but see Wheatley, *Khersonese*, p. 80, n. 1.

The Country of Ku-li

districts of K'an-pa-i¹ and other such places; each roll is four *ch'ih* five *ts'un* broad, and two *chang* five *ch'ih* long;² [and] it is sold for eight or ten of their local gold coins.³

The people of the country also take the silk of the silk-worm, soften it by boiling, dye it in all colours, and weave it into kerchiefs with decorative stripes at intervals; the breadth is four or five *ch'ih*, and the length one *chang* two or three *ch'ih*;⁴ [and] each length is sold for one hundred gold coins.⁵

As to the pepper: the inhabitants of the mountainous countryside have established gardens, and it is extensively cultivated. When the period of the tenth moon arrives, the pepper ripens; [and] it is collected, dried in the sun, and sold. Of course, big pepper-collectors come and collect it, and take it up to the official storehouse to be stored; if there is a buyer, an official gives permission for the sale; the duty is calculated according to the amount [of the purchase price] and is paid in to the authorities. Each one *po-ho* of pepper is sold for two hundred gold coins.⁶

The Che-ti mostly purchase all kinds of precious stones and pearls, and they manufacture coral beads and other such things.

Foreign ships from every place come there; and the king of the country also sends a chief and a writer and others to watch the sales; thereupon they collect the duty and pay it in to the authorities.

The wealthy people mostly cultivate coconut trees—sometimes a thousand trees, sometimes two thousand or three thousand—; this constitutes their property.

The coconut has ten different uses. The young tree has a syrup, very sweet, and good to drink; [and] it can be made into wine by fermentation. The old coconut has flesh, from which they express oil, and make sugar, and make a foodstuff for eating. From the fibre which envelops the outside [of the nut] they make ropes for ship-building. The shell of the coconut makes bowls and makes cups; it is also good for burning to ash for the delicate operation of inlaying⁷ gold or silver. The trees are good for building houses, and the leaves are good [Page 48] for roofing houses.

¹ Identified with Coimbatore by Pelliot ('Voyages', p. 413).

² That is, 4 feet 7 inches broad and 25 feet 5·9 inches long.

³ The gold content of 8 coins weighed 27·6 grains or 0·05756 ounce troy and would today be worth 14s. 3d.

⁴ The equivalent of 4 *ch'ih* was 48·9 inches; 1 *chang* 2 *ch'ih* equalled 12 feet 2·9 inches.

⁵ The gold content weighed 345·375 grains or 0·7195 ounce troy, and would today be worth £8 19s. 10d.

⁶ The gold content of 200 *fanam* weighed 690·751 grains or 1·439 ounces troy, and would now be worth £17 19s. 9d.; thus, based on the present value of gold, the price of pepper at Calicut was 8·2d. a pound; this is 34 per cent more than at Cochin.

⁷ *Hsiang*, Giles, no. 4253, 'a box', used for *hsiang*, Giles, no. 4250, 'side rooms', which in turn is used for *hsiang*, Giles, no. 4272, 'to inlay'. Shu Hsin-Ch'eng omits to give the necessary information.

For vegetables they have mustard plants, green ginger, turnips, caraway seeds, onions, garlic, bottle-gourds, egg-plants, cucumbers, and gourd-melons¹—all these they have in [all] the four seasons [of the year]. They also have a kind of small gourd which is as large as [one's] finger, about two *ts'un*² long, and tastes like a green cucumber. Their onions have a purple skin; they resemble garlic; they have a large head and small leaves; [and] they are sold by the *chin*³ weight.

The *mu-pieh-tzu*⁴ tree is more than ten *chang* high; it forms a fruit which resembles a green persimmon and contains thirty or forty seeds; it falls of its own accord when ripe; [and] the bats, as large as hawks, all hang upside-down and rest on this tree.

They have both red and white rice, [but] barley and wheat are both absent; [and] their wheat-flour all comes from other places as merchandise for sale [here].

Fowls and ducks exist in profusion, [but] there are no geese. Their goats have tall legs and an ashen hue; they resemble donkey-foals. The water-buffaloes are not very large. Some of the yellow oxen weigh three or four hundred *chin*⁵; the people do not eat their flesh; [but] consume only the milk and cream. The people never eat rice without butter. Their oxen are cared for until they are old; [and] when they die, they are buried. The price of all kinds of sea-fish is very cheap. Deer and hares [from up] in the mountains are also for sale.

Many of the people rear peafowl. As to their other birds: they have crows, green hawks, egrets, and swallows; [but] of other kinds of birds besides these they have not a single one, great or small. The people of the country can also play and sing; they use the shell of a calabash to make a musical instrument, and copper wires to make the strings; and they play [this instrument] to accompany the singing of their foreign songs; the melodies are worth hearing.⁶

¹ *Tung kua*, 'eastern gourd', the same vegetable as *tung kua*, 'winter gourd'.

² That is, 2.4 inches.

³ That is, 1.3 pounds avoirdupois.

⁴ Giles, nos. 8077; 9155; 12,317; the tree is *Momordica cochinchinensis*. The editor is indebted to Dr J. Needham, F.R.S., for the information that *Momordica* seeds were prescribed in the form of paste for abscesses, ulcers, and wounds, as well as in other ways for other affections. The equivalent of 10 *chang* was 102 feet.

⁵ The equivalent of 300 *chin* was 394.6 pounds avoirdupois.

⁶ Music was cultivated at the royal courts, and numbers of musicians were employed in the temples (Sastri, *South India*, pp. 305, 314-15). Conti, in his account of Vijayanagar city, records solemn singing at religious festivals, and the celebration of weddings with 'banquets, songs, trumpets, and instrumentes muche like unto ours' (Penzer, *Polo*, pp. 141-2). The instrument referred to by Ma Huan was probably the vina, a fretted instrument of the guitar kind, which was particularly favoured by Indian musicians; for Indian musical instruments, with sketches, see K. Ambrose, *Classical Dances and Costumes of India* (London, 1950), p. 28, and P. Thomas, *Hindu Religion, Customs and Manners* (third Indian edition, Bombay, 1956), pp. 113-14.

The Country of Ku-li

As to the popular [*Page 49*] customs and the marriage- and funeral-rites, the So-li people and the Muslim people each follow the ritual forms of their own class, and these are different.¹

The king's throne does not descend to his son, but descends to his sister's son; descent is to the sister's son [because]² they consider that the offspring of the woman's body alone constitutes the legal family. If the king has no elder or younger sister, [the throne] descends to his younger brother; [and] if he has no younger brother, [the throne] is yielded up to some man of merit. Such is the succession from one generation to another.³

The king's laws do not include the punishment of flogging with the bamboo. If the offence is slight, they cut off a hand [or] sever a foot; if it is serious, they impose a money-fine [or] put the offender to death; [and] if it is very [heinous], they confiscate his property [and] exterminate his family. A person who offends against the law is taken under arrest to an official, whereupon he accepts his punishment.⁴

If there is perhaps something unjust about the circumstances and he does not admit the offence, then [he is taken] before the king or before a great chief; [there] they set up an iron cooking-pot, fill it with four or five *chin*⁵ of oil and cook it to the boil; first they throw in some tree-leaves to test whether they make a crackling noise; then they make the man take two fingers of his right hand and scald them in the oil for a short time; he waits

¹ Hindu and Muslim usages differed in innumerable respects; in particular, Muslims worshipped one god, enjoyed a most lenient social code, held their feasts on days fixed according to the lunar year, ate meat (except pork), and buried their dead; Ma Huan, as a Muslim, must have observed such common Hindu usages as differed greatly from his own, that is, that the Hindus worshipped many gods as well as idols and cows and serpents, that they were inhibited by their caste system, that they held their feasts on days fixed according to the solar year, that they mostly adhered to a vegetarian diet (abhorring beef), and that they burned their dead. See Thomas, pp. 10, 11, 32, 34, 35, 93, 140, and Smith, pp. 66, 264.

² S includes this word.

³ Ma Huan's statement is correct, subject to the qualification that the king's younger brother succeeds if he is older than his nephew. Thorne in 1921 stated the law 'The eldest male in the line of descent succeeds.' Menon, in 1924, considered that the law was modified by custom, 'It does not appear that the next in age always succeeded'. Ayyar, in 1938, agreed with Thorne, 'Succession was regulated by the Marumakkayam law, according to which the oldest male traced through the female becomes the chief.' The law prevailed in Cochin also. Adoption was resorted to when necessary for the continuation of the family. Kung Chen's statement resembles Ma Huan's; Conti says 'The sonne dothe not inherit his fathers lande, but hys sonnes sonne'; Fei Hsin does not mention the matter. Thorne and Dames (1921) wrote long notes on this topic. See Dames, vol. II, p. 11, n. 1; p. 43, n. 1; Menon, vol. I, p. 480; Ayyar, pp. 261, 262; Penzer, *Polo*, p. 135.

⁴ According to Barbosa, the official was governor of Calicut, and bore the title of 'Talixe', that is, Talachan (Dames, vol. II, p. 27). On the administration of criminal justice see Ayyar, pp. 282-90.

⁵ The equivalent of 4 *chin* was 5.2 pounds avoirdupois.

till they are burnt and then takes them out; they are wrapped in a cloth on which a seal is affixed; [and] he is kept in prison at the office.

Two or three days later, before the assembled crowd, they break open the seal and examine him; if the hand has a burst abscess, then there is nothing unjust about the matter and a punishment is imposed; [but] if the hand is undamaged, just as it had been before, then he is released.

The chief and other men, with drums and music, ceremonially escort this man back to his family; all his relations, neighbours, and friends give him presents and there are mutual congratulations; and they drink wine and play music by way of mutual felicitation. This is a very extraordinary matter.¹

On the day when the envoy returned, the king of the country wished to send tribute; [so] he took fifty *liang*² of fine red gold and ordered the foreign craftsmen to draw it out into gold threads as fine as a hair; these were strung together to form a ribbon, which was made into a jewelled girdle with incrustations of all kinds of precious stones and large pearls; [Page 50] [and the king] sent a chief, Nai-pang,³ to present it as tribute to the Central Country.

THE COUNTRY OF LIU MOUNTAINS⁴
[MALDIVE AND LACCADIVE ISLANDS]

Setting sail from Su-men-ta-la,⁵ after passing Hsiao mao mountain,⁶ you go towards the south-west; [and] with a fair wind you can reach [this place] in

¹ This ordeal by boiling oil is described in much the same terms by Barbosa (Dames, vol. II, p. 29).

² That is, 59·95975 ounces troy; the present market value would be £749 9s. 11d.

³ K has *nai na* (Giles, nos. 8113; 8090), as has Kung Chen. Feng considers the characters to be interpolated. Since the words make no sense (Pelliot, 'Voyages', p. 414), we take them to be a proper name; it may be a contraction for 'Narayana', a name often met with in south India. The *Ming shih* states that, because Calicut was a great country, its ambassadors took precedence over those of all other countries.

⁴ 'Liu shan' (Giles, nos. 7259; 9663). Liu is a transliteration of *diu*, 'island', which, with other forms such as *dive*, *diva*, *diba*, was derived from Sanskrit *dvipa* (Yule and Burnell, under 'Maldives', p. 546b). The Liu mountains included the Laccadive islands situated about 200 miles from India, and the Maldive islands situated about 600 miles south-south-west of Cape Comorin; the groups extend for 750 miles from north to south and 100 miles from west to east. Politically insignificant, the islands had a certain economic importance based on the export of ropes, ambergris, bonito fish, and cowries. The Chinese claimed sovereignty over the islands. For the Liu mountains see Hsiang Ta, *Kung Chen*, pp. 32-3; Fei Hsin, ch. 2, pp. 22-3 (Rockhill, Part II, pp. 390-2); *Ming shih*, p. 7922, row 1; R. H. Ellis, *A Short Account of the Laccadive Islands and Minicoy* (Madras, 1924); H. C. P. Bell, 'Excerpta Maldiviana', *Journal of the Ceylon Branch of the Royal Asiatic Society*, no. VII, 'Lōnu Ziyarat': Male, vol. XXXI, no. 81 (1928), pp. 180-95; no. IX, 'Lomafanu', vol. XXXI, no. 83 (1930), pp. 539-78. For the location of the islands see British Admiralty Charts 66a, 66b, 66c, and 747.

⁵ Semudera (Lho Seumawe) on the north coast of Sumatra.

⁶ Poulo Weh. The reading of C, *Hsiao Mao shan*, should no doubt be *Nan-mao shan*.

The Country of Liu Mountains

ten days.¹ The foreign name for the country is Tieh-kan.² There is no walled city and suburban area; [and the people] live crowded together up against the mountains.³

[Each island] is surrounded by the sea on all four sides; it is like an islet, with no great extent of territory. When you travel west from the country, the route changes its character, and in the middle of the sea there is a natural stone gate, resembling a gate-way in a city-wall.⁴

There are eight large places, all having the name liu.⁵ The first is called 'Sha liu';⁶ the second is called 'Jen-pu-chih liu';⁷ the third is called 'Ch'i-ch'üan liu';⁸ the fourth is called 'Ma-li-ch'i liu';⁹ the fifth is called

¹ This would represent a very fast voyage of about 170 miles a day.

² Giles, nos. 11,122; 5810; the second character should be *wa* (Giles, no. 12,433), giving the name 'Tieh-wa', another derivative of *dvipa*.

³ None of the islands is more than 15 feet high; but any land above sea-level may be designated a *shan*, 'mountain'. The inhabitants of the Maldive islands and Minicoy were Mahls, speaking Mahl, a dialect of Sinhalese considerably arabicized. The inhabitants of the Laccadive islands were Malayalis speaking Malayalam. The inhabitants of both groups were Muslims. See Ellis, pp. 67-8; Husain, p. 208, n. 3.

⁴ Unexplained; there is probably some connection with Ibn Battuta's statement that a cluster of islands has 'an entrance similar to a gate by which alone ships can enter' (Husain, p. 197).

⁵ 'Large' is in K. S does not give the names of the atolls.

⁶ 'Sha-la liu' in the Mao K'un Map; *sha* may be a mislection for *mu*. In the Mao K'un Map, the altitude of Hua kai is given as 6½ fingers; in the *Muhit* the altitude of Ursa Minor at 'the island of Moluk' is given as 6 fingers; hence we identify Sha-la liu with Mulaku atoll, c. 2° 57' N (compare Ferrand, *Textes*, vol. II, p. 534).

⁷ The name is pronounced 'Jim-put-ti' in the Amoy dialect, and we equate it with the 'Gubati' of the *Muhit*. The Mao K'un Map does not give the altitude of Hua kai, but represents that the atoll lay between Male and Ch'i-lai liu (Kilay in Tiladummati atoll, see next footnote); in the *Muhit* the altitude of Ursa Minor at 'the island Gubati' is given as 7½ fingers, that is, half-way between Mahall or Male, 7 fingers, and Kilay, 8½ fingers; hence we identify Jen-pu-chih liu with Fadiffolu atoll, c. 5° 24' N, about half-way between Male, 4° 10' N, and Kelai island, 6° 58' N (compare Ferrand, *Textes*, vol. II, pp. 531-3).

⁸ The second character should be *lai* (Giles, no. 6679) as in K, and we equate the name 'Ch'i-lai' with the 'Kilay' of the *Muhit*. The Mao K'un Map does not give the altitude of Hua kai, but represents that the atoll lay between Jen-pu-chih liu (which we identify with Gubati and Fadiffolu atoll) and Ma-li-ch'i (Minicoy, see next footnote); in the *Muhit* the altitude of Polaris at the island of Kilay is given as 1½ fingers, that is, about half-way between Gubati where the altitude of Ursa Minor was 7½ fingers (equivalent to ½ finger of Polaris), and Mulaki or Minicoy where the altitude of Polaris was 2½ fingers; hence we identify Ch'i-lai with Tiladummati atoll, containing the island of Kelai, 6° 58' N, about half-way between Fadiffolu atoll, c. 5° 24' N, and Minicoy island, 8° 16' N (compare Ferrand, *Textes*, vol. II, pp. 530-2).

⁹ The third character is *ko* in K. In the Mao K'un Map the altitude of Polaris is given as 2½ fingers; in the *Muhit* the altitude of Polaris at the island of Mulaki is given as 2½ fingers; no doubt Ma-li-ch'i (Ma-li-ko) and Mulaki are to be identified with the Malicut of Pyrard and modern Maliku, corrupted by Europeans into Minicoy (8° 16' N) (compare Ferrand, *Textes*, vol. II, pp. 529-30).

'Chia-pan-nien liu';¹ the sixth is called 'Chia-chia liu';² the seventh is called 'An-tu-li liu';³ [and] the eighth is called 'Kuan jui liu'.⁴ These eight places all have local rulers, and merchant ships travel from one to another.

In addition there are some small and narrow *liu*; tradition says that there are more than three thousand *liu*.⁵ This place is in truth the so-called 'Three thousand weak waters'.⁶

The inhabitants all dwell in caves; they know nothing about rice and grain, [and] they only catch fish and shrimps to eat; they do not understand wearing clothes, [and] they use the leaves of trees to cover themselves in front and behind.⁷

If unfavourable winds and waters are met with, when the ship's master

¹ The Mao K'un Map gives the altitude of Polaris at 'Chia-p'ing-nien' as 1 finger, and represents that the atoll was situated between Minicoy, where the altitude of Polaris was $2\frac{1}{2}$ fingers, and An-tu-li liu (Andaru or Androth island, see footnote 3, below) where the altitude of Polaris was 4 fingers; in the *Muhit* the altitude of Polaris at the island of Kaffini is given as 3 fingers, that is, half-way between Mulaki or Minicoy where the altitude of Polaris is stated to be $2\frac{1}{2}$ fingers, and Andaru or Androth island where the altitude of Polaris is stated to be $3\frac{1}{2}$ fingers. No doubt the Chinese 'Chia-pan-nien' or 'Chia-p'ing-nien' liu represented the name of Kalpeni atoll, called by the Arabs 'Kaffini', since they had no *p* sound. Kalpeni island lies in $10^{\circ} 04' N$, that is, roughly half-way between Minicoy island, $8^{\circ} 16' N$, and Androth island, $10^{\circ} 49' N$. The Chinese reading '1 finger' is wrong; it should probably be '3 fingers', as in the *Muhit* (compare Ferrand, *Textes*, vol. II, pp. 528-30).

² Not satisfactorily identified. In the Mao K'un Map the island is placed between Chia-p'ing-nien and An-tu-li; and it is stated that (a) ships steered due east when travelling to Chia-chia from An-tu-li, $10^{\circ} 49' N$, and (b) it took 1 watch more to travel from An-tu-li to Chia-chia than it took to travel from An-tu-li to Calicut. No doubt Chia-chia liu is the island of Kaka-diwa of the *Muhit*, which states that it was off Budfattan or Puthupatanam, $11^{\circ} 33' N$, and gives the altitude of Polaris as $\frac{1}{2}$ finger (48') more than at Androth island ($10^{\circ} 49' N$), that is, indicates a latitude of $11^{\circ} 37' N$; but there is no island in this vicinity except Sacrifice rock, $11^{\circ} 30' N$, called Cagada [Kaka-di?] by the Portuguese (compare Ferrand, *Textes*, vol. II, p. 527).

³ The Mao K'un Map gives the altitude of Polaris at An-tu-li as 4 fingers; in the *Muhit* the altitude of Polaris at the island of Andaru is stated to be $3\frac{1}{2}$ fingers, being $\frac{1}{2}$ finger or 48' more than at Kaffini or Kalpeni, $10^{\circ} 04' N$. An-tu-li may safely be identified with Andaru, modern Androth, $10^{\circ} 49' N$ (compare Ferrand, *Textes*, vol. II, pp. 528-9).

⁴ The second character should be *hsü* (Giles, no. 4762), 'island', as in K and as in the Mao K'un Map, which gives the altitude of Hua Kai at Kuan Hsü or Official island as $7\frac{1}{2}$ fingers; in the *Muhit* the altitude of Ursa Minor is given as 7 fingers at 'Mahall, the one of the Diba islands where the Sultan of Diba resides'. Doubtless Official island is to be identified with Mahal, Male, or Sultan's island, which has been the capital and the sultan's residence continuously (compare Ferrand, *Textes*, vol. II, p. 533).

⁵ Ma Huan uses *liu* as though it were a Chinese word.

⁶ The 'Weak Waters' are mentioned in the *Shu ching* or *Classic of History*, dating perhaps from the fifth century B.C.; they have been placed in different localities.

⁷ This can apply only to the ruder sections of the community, since Ma Huan later states that the people observed the precepts of Islam and the women covered both bosom and face.

The Country of Liu Mountains

loses his bearings¹ and the rudder is destroyed, ships passing [*Page 51*] these *liu* drift into ebbing waters, gradually become uncontrollable, and sink; [and], as a general rule, when you travel by ship it is always right to avoid these [islands].

In the country of Tieh-kan² the king, the chiefs, and the populace are all Muslims. Their customs are pure and excellent; [and] therefore they all obey the regulations of their religion. The people mostly adopt fishing for a livelihood, and plant coconut-trees for a living. The limbs and the complexions of the men and women are [only] slightly dark.

The men wind a white cotton cloth round the head; [and] a kerchief surrounds the lower [part of the body]. The women wear a short garment on the upper [part of the body]; [and] on the lower [part] they, too, wear a broad cotton kerchief round them; they also carry a broad, large, cotton kerchief which passes across the head and covers it, disclosing only the face.

The marriage- and funeral-rites conform exactly with the regulations of the Muslim religion, and they follow them.

The land produces laka-wood, [but] not in any quantity. Coconuts are very abundant; people come from every place to purchase them, and go to other countries to sell them as merchandise. They have a kind of coconut with a small-shaped shell, which the people there convert into wine-cups; they make the feet of rose-wood, and varnish the mouth and feet with foreign varnish; they are most uncommon.

The fibre which covers the outside of the coconut is made into ropes, both thick and fine; these are heaped up in the houses; [and] men come from every place on foreign ships to purchase these too; they sell them in different countries for building ships and other such uses. In the construction of their foreign ships they never use nails; they merely bore the holes, and always use these ropes to bind [the planks] together, employing wooden wedges in addition; afterwards they smear the seams with foreign pitch; [and] no water can leak in.³

As to their ambergris:⁴ fishermen regularly collect it in places where the

¹ Literally, 'needle', that is, compass-needle.

² Read 'Tieh-wa', that is, *diwa*, 'island'. The king of Male may have been Sultan Haji Hassan III who flourished in 1420-1 (see Bell, 'Excerpta Maldiviana', no. VII, 'Lonu Ziyarat', p. 192). The sultans of the Maldivian islands, from the date of the conversion to Islam in the twelfth century, would seem to have held the throne virtually at the will of the chieftains and people (Bell, 'Excerpta Maldiviana', no. IX, 'Lomafanu', p. 555).

³ These sewn boats were noticed by many European travellers from Marco Polo onwards; such boats tended to disintegrate in heavy weather.

⁴ *Lung hsien hsiang* (Giles, nos. 7479; 4508; 4256), 'dragon's-spittle perfume'. Ambergris is a concretion in the intestine of the sperm-whale. See Wheatley, 'Commodities', under 'Dragon spittle', p. 125.

water flows away;¹ it is like the colour of pitch which has been immersed in water; when you smell it, it has no fragrance; when you burn it in the fire, there is only a fetid odour; you pay a rare price for it,² [Page 52] [and] buyers give an equivalent [weight of] silver in exchange.

As to their cowries:³ the people there collect them and pile them into heaps like mountains; they catch them in nets and let the flesh rot;⁴ [then] they transport them for sale in Hsien Lo,⁵ Pang-ko-la,⁶ and other such countries, where they are used as currency.

As to their *ma-chiao*⁷ fish: it is cut up into large pieces, dried in the sun, and stored; [people] also come from every country to carry it away for sale in other places; it is sold under the name of 'sea liu fish'.⁸

They weave a variety of embroidered silk kerchief, very closely-woven, substantial, long, and broad—decidedly superior to the weaves of other places. They also have a variety of gold-woven square kerchief, with which the men bind their heads; the selling-price of some [of these kerchiefs] is as dear as five *liang* of silver.⁹

¹ Literally, 'flowing places', that is, places where the water flows out through the rocks. Pelliot ('Voyages', p. 415) took *liu* as a proper name and rendered 'places in the Liu', that is, in the Maldivé islands.

² That is, 1 ounce troy of ambergris cost 1 ounce of silver, now having a market-value of 9s. 4d., so that 1 pound avoirdupois would have cost £6 16s. 6d. According to Fei Hsin (Groeneveldt, p. 222), 1 *liang* (1.19 ounces troy) of ambergris from Poulo Rondo was sold at Semudera for 12 gold coins; if we accept Ma Huan's figure of purity, the gold content of 12 coins would now be worth 57s. 10d., so that 1 ounce troy of ambergris was sold for the equivalent of 48s. 2d.; since the relative value of gold to silver in those times was as 5.6 to 1, the respective prices for 1 ounce troy would be, Maldivé ambergris 9s. 4d., Poulo Rondo ambergris 8s. 7d.

³ *Hai pa*, 'sea pa'; the second character is not in the dictionaries; it is used for *pa* (Giles, no. 8511), 'a kind of cowry'. The Maldivé islands were the principal source of cowries.

⁴ The texts are in a very confused state; thus, after 'rot' C omits 30 characters which appear in Feng's text and goes on to speak of 'sale in other places'; hence Duyvendak (*Ma Huan*, p. 58), knowing only C, represents that cowries were sold under the name of *hai liu yu*, 'sea liu fish', whereas the name 'liu fish' was applied, not to cowries, but to dried bonito fish, as appears later. Pelliot ('Voyages', pp. 414-18) has a long note on the subject.

⁵ Thailand.

⁶ Bengal. Ma Huan does not say this; Feng introduces the name on the strength of a statement made by Huang Sheng-tseng.

⁷ Giles, nos. 7576; 1315; Pelliot ('Voyages', p. 417), identified this fish with the bonito. The Maldivian name for it, *kalu-bili-mas*, 'black bonito fish', was corrupted by Europeans into 'cobily mash'; see Yule and Burnell, p. 223 b.

⁸ Pelliot ('Voyages', p. 418) considered that the word 'sea' was redundant, and that the name was simply 'liu fish'. Kung Chen calls it 'liu fish'.

⁹ Barbosa's 'very fine and thin kerchiefs', which Portuguese craftsmen could not make (Dames, vol. II, p. 106). The equivalent of 5 *liang* was 5.9959 ounces troy; such weight of silver would now be worth 55s. 11d.

The Country of Liu Mountains

As to the climate: the four seasons [of the year are] always hot, like summer.

The soil is very poor; rice is scarce; wheat does not exist; and vegetables are not abundant. Oxen, goats, fowls, and ducks—all these they have; [but] beyond that there are no products.

The king uses silver to cast a small coin for general use.¹

One or two treasure-ships of the Central Country went there, too; [and] they purchased ambergris, coconuts, and other such things. It is but a small country.

THE COUNTRY OF TSU-FA-ERH²

[DHUFAR]

Setting sail from the country of Ku-li³ and travelling in the direction of north-west, with a fair wind you can reach [this place] after ten days and nights.⁴ The country lies beside the sea and up against the mountains. They have no walled city and suburban area. On the south-east is the great sea; [Page 53] on the north-west are fold after fold of mountains.

The king of the country and the people of the country all profess the Muslim religion. The men have long, large limbs, and a tall and stout appearance. They are sincere in speech.

As to the king's dress: he uses a white, fine foreign cloth to bind round his head; on his body he wears [a robe] which has fine silk embroidery in a blue floral design as large as [one's] thumb and covers the head,⁵ or else [he has] a robe with gold embroidery; [and] on his feet he wears foreign boots, or else leather shoes with a shallow face.

¹ The commentary in Huang Sheng-tseng's account states that it weighed 2 *sen* 3 *li*, that is, 13.23 grains or 0.0275 ounce troy; this weight of silver would now be worth 3d. Considering that Huang must have derived his information from Ma Huan, Pelliot ('Voyages', p. 418) concluded that Huang had a better text of Ma Huan than we have today.

² Giles, nos. 11,826; 3366; 3333; a transliteration of the mediaeval Arabic name 'Zufar' or 'Zafar', a town on the south coast of Arabia. The modern name, Dhufar or Dhafar, now designates a district and no longer a town. The mediaeval town was apparently situated at Al-Balad or Al-Bilad, 17° 00' N, 54° 06' E, about 2 miles east of Salala, the principal trading centre. The Dhufar plain extends along the coast for about 27 miles from 53° 56' E to 54° 25' E. The small independent sultanate of the fifteenth century was politically insignificant, but possessed a certain commercial importance based on the export of fine Arab steeds and of incense, the town being the centre of the frankincense trade. For Dhufar see Hsiang Ta, *Kung Chen*, pp. 33-5; Fei Hsin, ch. 2, pp. 18-19 (Rockhill, Part II, pp. 613-14); *Ming shih*, p. 7921, row 3; M. T. Houtsma and others, *Encyclopaedia of Islam* (Leyden, 1913-38), p. 1185; A. Kammerer, 'La Mer Rouge, l'Abyssinie et l'Arabie', vol. II, *Mémoires de la Société Royale de Géographie d'Égypte*, vol. XVI (Cairo, 1935), p. 118; Hitti, p. 36; Sir H. A. R. Gibb, *The Travels of Ibn Battuta*, vol. II (Cambridge, 1962), pp. 382, 383, 389, 390; Serjeant, pp. 7, 27, 167.

³ Calicut.

⁴ A fast voyage of 134 miles a day.

⁵ A sort of burnous (Pelliot, 'Voyages', p. 419).

When he goes about, he rides in a sedan-chair, or else he mounts a horse; before and behind him are ordered ranks of elephants, camels, companies of cavalry, and men with swords and shields; they blow whistles¹ and pipes,² and proceed in a dense throng.

As to the clothes and hats worn by the people: they bind their heads; [they have] long garments; [and] on their feet they wear boots or shoes.

If it happens to be the day of worship, trading in the markets is stopped before mid-day; men and women, old and young, all bathe themselves; when that is finished, they take rose-water³ or sinking incense⁴ and oil, and rub it over their faces and four limbs; all put on neat, newly-washed clothes; they also take a small earthen incense-burner, light some sinking incense, sandal-wood, *an-pa-erh*,⁵ and other such incense, and set it on the incense-burner; having perfumed their clothes and limbs, they then go to the temples of worship; after the worship has finished, then they return home; and the fragrance of the incense lingers for some time in the market-streets through which they pass.⁶

As to the marriage- and funeral-rites: they act in conformity with the regulations of the Muslim religion.

The land produces frankincense; this incense is in truth the gum from a tree; this tree resembles an elm-tree, but its leaves are pointed and long; [and] the people there continually cut the tree, get the incense, and sell it.

When the treasure-ships of the Central Country arrived there, after the reading of the imperial will and the conferment of presents was finished, the king sent chiefs everywhere to issue instructions to the people of the country [and] they all took such things as frankincense,⁷ [Page 54] dragon's-blood,⁸

¹ *Pi-li* (Giles, nos. 9000; 6979); presumably similar to the *pi li* (Giles, no. 9013), the Tartar pipe, made of bamboo and a reed, with 9 finger-holes; it gave a mournful sound.

² *So-nai* (Giles, nos. 10,204; 8121); a transliteration of the Persian *surmai* or *surma* (Pelliot, 'Voyages', p. 420). The Arab *surmay* was a reed-pipe or oboe, with a wooden tube (Gibb, *The Travels*, vol. II, p. 343, n. 242). A sketch of the Indian *sawai* will be found in Ambrose, p. 29.

³ *Ch'iang wei lu* (Giles, nos. 1290; 12,587; 7369); not to be confused with the 'essence of roses', our attar of roses. See Hirth and Rockhill, p. 204 n.; Wheatley, 'Commodities', p. 107.

⁴ A variety of lign-aloes.

⁵ Giles, nos. 48; 8504; 3333; ambergris; from Arabic *anbar*; see Bretschneider, vol. I, p. 152, n. 409; Hirth and Rockhill, p. 237, n.

⁶ In the Northern Sung period (960-1127) the courtiers perfumed the streets of the capital, K'ai feng, as they passed to the court on festival days (Kuwabara, no. VII, p. 76).

⁷ No doubt it was these luxuries which attracted the Chinese to Dhufar. Frankincense (*ju hsiang*, Giles, nos. 5691; 4256) is a gum-resin produced by small trees of the genus *Boswellia*; in Arabia they grow only in Dhufar (Wheatley, 'Commodities', p. 47).

⁸ Dragon's blood is a red resin produced from *Dracaena schizantha* and *Dracaena cinnabari* found in East Africa and South Arabia (Wheatley, 'Commodities', p. 109).

The Country of Tsu-fa-erh

aloes,¹ myrrh,² benzoin,³ liquid storax,⁴ and *mu-pieh-tzu*,⁵ and came to barter them for hemp-silk, porcelain ware, and other such articles.

The climate of this place is always like the eighth and ninth moon—never cold.

Also, there is no lack of such things as husked rice, wheat, pulse, unhusked rice, glutinous millet, panicked millet, hemp-seeds, and all kinds of vegetables, gourds, oxen, goats, horses, donkeys, cats, dogs, fowls, and ducks.

In the mountains they also have the 'camel-fowl';⁶ some of the local people catch them, too, [and] come in to sell them. This 'fowl' has a flat body and a long neck; in shape it resembles a crane; the legs are three or four *ch'ih* high;⁷ each leg has only two toes; its hair is like a camel's; it eats green peas and other such things; [and] it walks like a camel, hence the name 'camel-fowl'.

As to their camels: they have single-humped ones,⁸ and they have double-humped ones; the people all sit and ride on them to go to the market-streets; [and when the camels are] about to die, they kill them and sell the flesh.

The king casts a gold coin named a *t'ang-ch'ieh*;⁹ each coin weighs two *ch'ien* on our official steelyard;¹⁰ the diameter is one *ts'un* five *fen*;¹¹ on one side there are lines,¹² [and] on one side the design of a man's figure. He also casts a small coin of copper, about three *li*¹³ in weight and four *fen*¹⁴ in diameter, for petty transactions.

On the day when the imperial envoy was returning, the king of this country also sent his chief, who took frankincense, 'camel-fowls', and other such things, and accompanied the treasure-ships in order to present tribute to our court.¹⁵

¹ Aloes (*lu wei*, Giles, nos. 7414; 12,632) is the juice expressed from a genus of plants belonging to the family Liliaceae (Wheatley, 'Commodities', p. 109).

² Myrrh (*mo yao*, Giles, nos. 8016; 12,958) is a fragrant gum-resin obtained from a genus of shrubs and trees known as *Commiphora* (Wheatley, 'Commodities', p. 73).

³ This benzoin (*An hsi hsiang*, Giles, nos. 44; 4034; 4256, 'Persian aromatic') is gum-gugul, an aromatic gum-resin obtained from trees of the *Balsamodendron* species and from *Boswellia serrata* (Wheatley, 'Commodities', p. 55).

⁴ Liquid storax (*su ho yu*, Giles, nos. 10,320; 3947; 13,409), sweet oil of storax obtained by subjecting the bark of *Liquidambar orientalis* to heat and compression (Wheatley, 'Commodities', p. 108).

⁵ *Momordica cochinchinensis*.

⁶ The ostrich.

⁷ The equivalent of 3 *ch'ih* was 36.7 inches.

⁸ The dromedary.

⁹ Giles, nos. 10,756; 1558; *tanka*; see Yule and Burnell, under 'tanga', p. 896b. On coinage in Southern Arabia see Serjeant, pp. 138-54.

¹⁰ C has 2 *fen*; S and K have 3 *ch'ien*. Since 2 *ch'ien* equalled 115.12 grains or 0.23983 ounce troy, the gold content, if pure, would now have a market value of £2 19s. 11d. K, after giving the weight of this coin, omits 30 characters.

¹¹ That is, 1.8 inches. ¹² Or 'characters'; S has *tsu* (Giles, no. 12,324), 'characters'.

¹³ That is, about 1.7 grains.

¹⁴ That is, 0.48 inch.

¹⁵ The first official Chinese visit to Dhufar was made by the eunuch Hung Pao in 1422 during the course of Cheng Ho's sixth expedition (Duyvendak, 'Dates', p. 386);

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THE COUNTRY OF A-TAN¹

[ADEN]

Setting sail from the country of Ku-li² and going due west—the point *nai*³ [on the compass]—you can reach [this place after] travelling with a fair wind for one moon.⁴ The country lies beside the sea, and is far removed from the mountains.

The country is rich, and the people numerous. The king of the country and the people of the country all profess the Muslim religion. They speak the A-la-pi⁵ language. The people are of an overbearing disposition.

They have seven or eight thousand well-drilled horsemen and foot-soldiers; therefore the country is very powerful, and neighbouring states fear it.⁶

In the nineteenth year of the Yung-lo⁷ [period] the emperor ordered that Ma Huan may, however, allude to the visit made in 1432 or 1433 during the course of the seventh expedition (Pelliot, 'Voyages', p. 304). In 1422 the ruler was Ali bin Umar, succeeded on his death in 1427/8 by his sons, Muhammad and Abdullah (Professor R. B. Serjeant; private communication).

¹ Giles, nos. 1; 10,618; a transliteration of the name Aden (Adan), 'the port of Yemen', situated in 12° 47' N, 44° 59' E, on the south coast of Arabia. Its excellent harbour, its location adjacent to the junction of the sea-routes and commanding the entrance to the Red Sea, and its caravan roads to the north, made it a natural entrepôt for the commerce which began to trickle from East Africa and Asia into the narrows of Bab-al-Mandeb from very early times. In the beginning of the fifteenth century Aden was the main port on the main route from the Mediterranean to India and the Far East, and it enjoyed extraordinary prosperity under the Rasulid dynasty (1229–1454) of the Yemen (Yamen) whose capital was at Ta'izz. Aden was immensely strong; its ruler governed south-west Arabia as far north as Mecca, and contested the control of the Holy Cities, Mecca and Medina, with the Mameluke kings of Egypt. For Aden see Hsiang Ta, *Kung Chen*, pp. 35–7; Fei Hsin, ch. 2, pp. 17–18 (Rockhill, Part II, pp. 610–11); *Ming shih*, p. 7921, row 4; Gibb, *Ibn Battuta*, p. 351; Pelliot, 'Notes', p. 295; Schrieke, pt. II, p. 233; Hitti, pp. 49, 58, 646; Gibb, *The Travels*, vol. I, p. 203; vol. II, p. 372; Gibb and others, *Encyclopaedia of Islam* (new ed., Leyden–London, 1954), vol. I, fasc. 17 (1959), p. 181; G. R. Tibbetts, 'Early Muslim Traders in South-East Asia', *Journal of the Malayan Branch of the Royal Asiatic Society*, vol. XXX, pt. I (1962), p. 12; Serjeant, pp. 6, 7, 138.

² Calicut.

³ Giles, no. 12,170; the point 'west' on the compass. The editor is indebted to Dr Joseph Needham, F.R.S., for this explanation, which is not given in the dictionaries. The usual term for 'west' on the Chinese compass is *yu* (Giles, no. 13,398), and this was already used in Han times (Needham, vol. III, p. 543, fig. 223).

⁴ Representing a voyage of 62 sea-miles a day.

⁵ Arabic.

⁶ Huang Sheng-tseng (ch. III, f. 9v) says that Aden had 20,000 horse and foot. The Rasulid dynasty of Yemen made themselves independent of Egypt in 1229 (Gibb, *Ibn Battuta*, pp. 109, 351). In Ma Huan's time the Rasulid rulers were Al-Malik al-Nasir Salah al-din Ahmad ibn Isma'il, 1400–24; Al-Malik al-Mansur Abdallah ibn Ahmad, 1424–7; Al-Malik al-Ashraf Isma'il II ibn Ahmad, 1427–8; and Al-Malik al-Zahir Yahya ibn Isma'il, 1428–39 (Professor C. F. Beckingham; private communication).

⁷ The date of the emperor's order was 3 March 1421 (Duyvendak, 'Dates', p. 385). In speaking of this mission Pelliot ('Voyages', p. 420) wrongly wrote 'Djofar' for 'Aden'.

The Country of A-tan

the principal envoy the grand eunuch Li¹ and others should convey an imperial edict, with robes and hats to be bestowed upon the king and the chiefs. When they reached the country of Su-men-ta-la,² the fleet was divided, and the eunuch Chou³ arrived there in command of several treasure-ships.⁴

When the king heard of his arrival, he led his major and minor chiefs to the sea-shore, and welcomed the imperial edict and the bestowal of gifts. At the king's palace they rendered a ceremonial salutation with great reverence and humility.⁵

When the reading of the imperial will was completed, the king of the country issued an order to the people of the country that only those who had precious things were permitted to sell or exchange them; and there [our people] were able to buy large 'cat's-eyes'⁶ weighing about two *ch'ien*,⁷ and all kinds of *ya-ku*⁸ and other such rare gems, and large pearls, and several stems of coral-trees, two *ch'ih*⁹ in height; they were also able to buy five cases of coral branches, and such things as golden amber, rose-water, *ch'i-lin*,¹⁰ lions, patterned *fu-lu*,¹¹ golden-spotted leopards, 'camel-fowls',¹² and white pigeons, [Page 56] and these things were brought home.

As to the dress of the country's king: on his head he dons a gold hat; on

¹ Presumably the assistant envoy Li Hsing (Duyvendak, 'Dates', pp. 355, 386); but perhaps Li K'ai (Pelhot, 'Encore', p. 216).

² Semudera (Lho Seumawe) on the north coast of Sumatra.

³ Presumably Chou Man, later grand eunuch and assistant envoy (Duyvendak, 'Dates', pp. 355, 386).

⁴ S and Kung Chen state that there were 3 ships.

⁵ The Mameluke Sultans of Egypt had already extended their authority half-way down the Red Sea (Popper, p. 11), and it is possible that the Yemenite sultan's fulsome welcome of the Chinese was actuated by a desire to acquire an ally who might prove useful in the event of further Egyptian expansion.

⁶ Opalescent yellow-green stones; see Wheatley, 'Commodities', p. 112.

⁷ That is, about 115 grains. Ma Huan says nothing about the Chinese trade-goods. Fei Hsin states that they consisted of such things as gold, silver, coloured piece-goods, porcelain articles with blue and white designs, sandalwood, and pepper.

⁸ Arabic and Persian *yakut*, ruby and corundum.

⁹ That is, 24.4 inches.

¹⁰ Giles, nos. 1044; 7186; the giraffe. Feng derives the expression from the Somali *giri*. Fei Hsin called the animal *tsu-la-fa*, and Chao Ju-kua *tsu-la*, representing the sound of the Arabic name *zarafa* (Hirth and Rockhill, pp. 128, 129, n. 6). Duyvendak noted that since the arrival of this giraffe was not recorded, it might have succumbed on the voyage. The emperor first received a giraffe from Bengal in 1414; he received another from Malindi (Melinde) in 1415, another from Aden in 1419, and another from Mecca in 1433 (Duyvendak, 'Dates', pp. 399, 400, 406).

¹¹ Giles, nos. 3707; 7434; the zebra, Feng derives the expression from the Somali *faro*. For the first character, C, followed by the *Ming shih*, writes *mao* 'cat'; *fu* is correctly written in S and K, not noted by Pelhot. Owing to incorrect punctuation, Duyvendak has made several mistakes in translating this list of purchases (Pelhot, 'Voyages', pp. 420-1).

¹² Ostriches.

his body he wears a yellow robe; [and] round his waist he binds a gold belt adorned with jewels. When the day of prayer arrives and he goes to the temple to worship, he changes [his attire], binding his head with a fine white foreign cloth, on which he superimposes a top-piece of gold brocade; on his body he wears a robe of white; [and] he proceeds [to the temple] sitting in a carriage, with a formation of soldiers.

All his chiefs have different hats and clothes according to their gradation of rank.

As to the dress worn by the people of the country: the men bind the head, and wear a *sa-ha-la*,¹ or a woollen,² or an elegantly-embroidered hemp-silk, or other such garment; [and] on their feet they put boots or shoes.

As to the dress of the women: over the body they put on a long garment; round the shoulders and neck they set a fringe of gem-stones and pearls—just as Kuan yin³ is dressed; in the ears they wear four pairs of gold rings inlaid with gems; on the arms they bind armlets and bracelets of gold and jewels; [and] on the toes⁴ they also wear toe-rings; moreover, they cover the top of the head with an embroidered kerchief of silk, which discloses only the face.

All the people in the country who make and inlay fine gold and silver ornaments and other such articles as their occupation, [produce] the most refined and ingenious things, which certainly surpass anything in the world.

Again, they have market-places and public bathing-establishments, also shops selling cooked foods, silk, silk fabrics, books, and every kind of article—all these they have.

The king uses red gold to cast a coin for current use; it is named a *fu-lu-li*,⁵ each coin weighs one *ch'ien*⁶ on our official steelyard; [and] it has lines⁷ on the reverse. He also uses copper to cast a coin named a *fu-lu-ssu*⁸—for petty transactions.

¹ Giles, nos. 9523; 3754; 6654; broadcloth; the expression is a transliteration of Persian *sakallat*, derived by the Chinese either immediately or through the medium of Malay *sakelat*; see Pelliot, 'Voyages', p. 437.

² *So-fu* (Giles, nos. 10,199; 3706); a term for woollens and other foreign fabrics; said to be a corruption of the Arabic *suf*; the expression is not given in Shu Hsin-Ch'eng.

³ The goddess of mercy.

⁴ As in S and K; C says 'fingers'; probably the correct reading should be 'fingers and toes', as in Huang Sheng-tseng (ch. III, f. 10).

⁵ Giles, nos. 3624; 7388; 6942; the Persian name of a gold coin, *fuluri*; the term was also applied by the Ottoman Turks to the Venetian ducat (private communication from Professor C. F. Beckingham); presumably *falory* mentioned in about 1550 is the same word (Yule and Burnell, under 'Ashrafee', p. 386; Pelliot, 'Voyages', p. 420).

⁶ That is, 57.56 grains or 0.11991 ounce troy; the gold content, if pure, would now be worth 29s. 11d.

⁷ Or, 'characters'.

⁸ Giles, nos. 3624; 7388; 10,262; *fulus* is the plural of *fuls*, for the classical Arabic word *fals*; the term was employed in the Middle Ages for copper money in general (Pelliot, 'Voyages', p. 421). The bronze *fuls* is still used in Iraq.

The Country of A-tan

The climate of this country is warm—always like the eighth or ninth moon.

In fixing the calendar¹ they have no intercalary moon; they merely take twelve moons to make one year; [and] they have no long or short² moons. [Page 57] If their chiefs see the new moon one night, then the next day is the beginning of the moon. [The dates of] the four seasons are not fixed.

Of course they have astrologers³ who make the calculations; for instance, they will fix a certain day as the beginning of spring, and the flowers will in truth bloom after that day; [they will fix] a certain day as the commencement of autumn, and the leaves of the trees will in truth fall [after that day]; so too as regards eclipses of the sun and moon, the varying times of the spring-tides, wind and rain, cold and warmth—all these are accurately determined.

As to the drink and food of the people: all kinds of rice-flour and wheat-flour—all these they have. Many of the people make up a mixture of milk, cream, butter, sugar, and honey to eat.

Husked and unhusked rice, beans, cereals, barley, wheat, sesame, and all kinds of vegetables—all these they have. For fruits, they have such varieties as Persian dates,⁴ pine-nuts, *pa-tan*,⁵ dried grapes, walnuts, apples,⁶ pomegranates, peaches, and apricots.

Elephants,⁷ camels, donkeys, mules,⁸ oxen, goats, fowls, ducks, cats, and dogs—all these they have; only they have no pigs or geese. The sheep have white hair and no horns; on the head they have two lumps of black hair, like that hanging on the heads of boys in the Central Country; under the neck they have a bag like that of an ox; their hair is short, like a dog's; [and] their tails are as big as a basin.

The residences of the people are all built with layers of stone;⁹ over them

¹ Literally, 'days and moons'. As is well known, the Muslim 'month of the fast' (Ramadan, Ramazan), being based on lunar reckoning, may occur at any time of the year.

² Literally, 'big or small'.

³ *Yin yang jen* (Giles, nos. 13,224; 12,883; 5624); 'female-principle and male-principle men'.

⁴ *Wan-nien tsao* (Giles, nos. 12,486; 8301; 11,623), 'ten-thousand-year jujubes'. Presumably this is the same as the thousand-year jujube; it is the fruit of the palm *Phoenix dactylifera* (Wheatley, 'Commodities', p. 53).

⁵ Giles, nos. 8514; 10,624; Persian *badam* (Pelliot, 'Voyages', p. 433); almond.

⁶ *Hua hung* (Giles, nos. 5002; 5270); 'flower red', vulgar name for *ch'in* (Giles, no. 2101), *Pyrus malus* (Pelliot, 'Voyages', p. 434).

⁷ The elephants, of course, must have come from Africa.

⁸ S and K include horses.

⁹ Fei Hsin says that the houses were built of *lo ku* stone, apparently a kind of coral; this 'well-known Chinese term', still unexplained, occurs very frequently in the Chinese sailing directions, and is used also by Chao Ju-kua, Wang Ta-yüan, and Huang Sheng-

they have a roof of bricks or a roof of earth; in some cases the layers of stone [rise to] three storeys, four or five *chang*¹ in height; sometimes, too, wood is used to construct a framework for storeyed residences; [and] all this wood is composed of locally-produced red sandalwood.²

[Page 58] As to the plants and trees which the land produces: they also have rose-water, magnolia flowers,³ and seedless white grapes.

In addition, [they have] the patterned *fu-lu*,⁴ the white 'camel-fowl'⁵ with black markings, and the big-tailed hornless sheep.⁶ The *fu-lu* resembles a mule; it has a white body and white face; between the eye-brows there starts imperceptibly a pattern of very fine black lines which extend over the whole body as far as the four hooves; these fine lines take the form of spaced strips, [and look] as though the black pattern was painted on. The white 'camel-fowl' also has black markings—just like the *fu-lu*.

The *ch'i-lin*⁷ has two fore-feet which are more than nine *ch'ih* high;⁸ the two hind-feet are about six *ch'ih* high;⁹ the head is carried on a long neck which is one *chang* six *ch'ih* long;¹⁰ since the front part is tall and the hind part low, men cannot ride it; on its head it has two fleshy horns, beside the ears; it has the tail of an ox and the body of a deer; the hoof has three digits; it has a flat mouth; [and] it eats unhusked rice, beans, and flour-cakes.

The lion has a body which resembles a tiger's in shape; it is a dark-yellow colour, without stripes; it has a large head and a broad mouth; the tail tapers to a point, which has a lot of hair, black and long, like a tassel; [and] the noise tseng; the term recalls Mendaña's 'white *lucaios* which is a stone formed in the sea like coral'; the annotators thought that it might be a Peruvian word (Lord Amherst and B. Thomson, *The Voyage of Mendaña to the Solomon Islands in 1568* (London, 1901), vol. 1, p. 134).

¹ The equivalent of 4 *chang* was 40 feet 9 inches.

² *Tzu t'an* (Giles, nos. 12,329; 10,706). Shu Hsin-Ch'eng identifies this wood with *Pterocarpus santalinus*; but this was not the true sandalwood (Wheatley, 'Commodities', pp. 65-7).

³ *Yen po* (Giles, nos. 13,096; 9355); for the first character S and K have *tan* (Giles, no. 10,630); it appears from Shu Hsin-Ch'eng, however, that the correct reading should be *chan* (Giles, no. 277); so Ma Huan refers, nearly two hundred years before Pietro della Valle, to the well-known *chumpuk* flower of the ornamental and sacred tree *Michelia champaca*; see Yule and Burnell, p. 218a. It is possible, however, that Ma Huan confuses the magnolia with the gardenia, on which see Wheatley, 'Commodities', pp. 63-4.

⁴ The zebra.

⁵ The ostrich.

⁶ K adds 'the lion, the *ch'i-lin* [giraffe], and the golden-spotted leopard'.

⁷ The giraffe.

⁸ The equivalent of 9 *ch'ih* was 110.1 inches.

⁹ The equivalent of 6 *ch'ih* was 73.4 inches.

¹⁰ That is, 16 feet 3 inches. S says that measurement was the height of the head.

The Country of A-tan

of its roar is like thunder.¹ All the beasts, when they see it, fall down and dare not rise; it is indeed the king among the beasts.²

The king of the country was filled with gratitude for the imperial kindness, and specially made two gold belts inlaid with jewels, a gold hat studded with pearls and precious stones, besides *ya-ku* and all other such kinds of precious stones, two local horns, and a memorial to the throne written on gold leaf; [and] he presented these things as tribute to the Central Country.

THE COUNTRY OF PANG-KO-LA³

[BENGAL]

[Page 59] Setting sail from the country of Su-men-ta-la,⁴ you make Mao mountain⁵ and Ts'ui lan islands;⁶ [then] you proceed on a north-westerly course, and, after travelling with a fair wind for twenty days,⁷ you come first to Che-ti-chiang,⁸ where the ship is moored. [Thence] you use a small ship to enter the estuary, [and after travelling] for more than five hundred

¹ Several of the animals mentioned in the text must have been imported from the east coast of Africa. At a somewhat earlier date European travellers had begun to describe African and Asian animals for the benefit of European readers; thus, Niccolo da Poggibonsi in his *Libro D'Oltramare* (1346-50) describes the elephant, giraffe, and ostrich. Since zoological gardens began with the Renaissance, such animals had not yet been imported into Europe. See T. Bellorini and E. Hoade, *Visit to the Holy Places* (Jerusalem, 1948), pp. 91, 92.

² Presumably this represents current opinion in Aden; but in Hormuz, as appears later, pride of place was given to the lynx.

³ Giles, nos. 8662; 6069; 6653; a transliteration of the Indian name Bangala; the region of the Ganga (Ganges) Delta (between 21° 31' and 22° 38' N and 88° 05' and 90° 28' E) and the districts immediately above it. At the time of Ma Huan's visit in 1432, Bengal was an independent, powerful, and rich state, politically and economically important, with a well-organized military and civil administration; the rulers, with their capital at the famous city of Gaur, belonged to a family of Hindu origin, which was converted to Islam during the reign of Jalal-ud-din (1414-31). For Bengal see Hsiang Ta, *Kung Chen*, pp. 37-41; Fei Hsin, ch. 1, pp. 38-43 (Rockhill, Part II, pp. 440-4); *Ming shih*, p. 7921, row 2; Pelliot, 'Voyages', pp. 315-16, 324; Duyvendak, 'Dates', p. 370, n. 4; Sir J. Sarkar, *The History of Bengal* (Dacca, vol. II, 1948), pp. 116-29; R. C. Majumdar and others, *An Advanced History of India* (London, pt. II, 1951), pp. 344-5, 397-8; Smith, pp. 271-2.

⁴ Semudera (Lho Seumawe), on the north coast of Sumatra.

⁵ Poulo Weh, island off the north coast of Sumatra.

⁶ The Nicobar and Andaman islands.

⁷ Representing a voyage of 61 miles a day.

⁸ Giles, nos. 552; 10,956; 1245; Chittagong, 22° 20' N, 91° 50' E. It is certain that the 'Sa-ti-chiang' of the Mao K'un Map and the 'Ch'a-ti-chiang' of the 'Shun-feng' sailing directions represented Chittagong; and we provisionally conclude that the 'Ch'a-ti-chiang' of Fei Hsin and the 'Che-ti-chiang' of Ma Huan should also be identified with Chittagong, but there is a possibility that they denoted Satgaon, on the Hooghly river, 30 miles above modern Calcutta.

li,¹ you come to a place named So-na-erh-chiang,² where you go on shore.

You travel towards the south-west³ for thirty-five stages,⁴ [and then] you reach the capital.⁵ There is a walled city and suburban area, and the king's palace with the whole of the big and small yamens are all situated within the city.

The territory of the country is extensive, products abound, and the population is dense. Throughout the whole of the country the people are all Muslims.⁶ The customs of the population are pure and good. Wealthy individuals who build ships and go to various foreign countries to trade are quite numerous; and those who go abroad to hire themselves out as servants are also numerous.⁷

In appearance all the people are black,⁸ with but an occasional white person. The men all shave the hair of the head and use a white cloth to bind round it. On the body they wear a long round-collared garment which is slipped down over the head; round the lower [part of the body] they wind a broad multi-coloured kerchief; [and] on the feet they wear leather shoes with a shallow face.

As to the dress worn by the king of the country and the chiefs: they all observe the ordinances of the Muslim religion, [and] their hats and clothes are very neat and elegant.

¹ The equivalent of 500 *li* was 175 miles.

² Sonargaon, 15 miles from Dacca in direction 102° and 1½ miles from the Meghna river; it was the eastern capital of Bengal till 1612 (Sarkar, p. 116).

³ If Ma Huan travelled by water, he must have voyaged south-west down the Meghna river until he reached the Ganga river, and then followed the latter river towards the north-west, but he does not mention any change of direction.

⁴ Fei Hsin travelled for 20 stages to Pandua; see the next note.

⁵ Ma Huan does not give the name of the capital. According to Pelliot ('Voyages', pp. 307, 324) Ma Huan visited Bengal during the course of Cheng Ho's seventh expedition which left the coast of China on 12 January 1432, and according to Sarkar (p. 129) the Bengal ruler's headquarters were moved back from Pandua to Gaur by Jalal-ud-din Muhammad Shah between 1418 and 1431; hence it follows that the capital visited by Ma Huan must have been Gaur. Gaur, 'the historic capital of Bengal', was situated 157 miles from the site of Calcutta in direction 351°. The capital previously visited by Fei Hsin between 1412 and 1414 and again between 1415 and 1418 was at Pan-tu-wa, that is, Pandua; this place lay about 18 miles north of Gaur (private communication from Dr A. L. Basham). Compare the notes of Duyvendak (*Ma Huan*, pp. 62-3) and Pelliot ('Voyages', pp. 422-3). At the time of Ma Huan's visit the king was Shams-ud-din Ahmad (1431-42).

⁶ This is a surprising statement; in northern India during the period of the Delhi sultanate, from 1340 to 1526, the Hindu population is said to have been 'vastly more numerous' (Smith, p. 265). Perhaps S represents what Ma Huan wrote, 'The king and the chiefs of the country all profess the Muslim religion'.

⁷ 'The ports of Bengal and Gujarat were then chiefly used for India's export trade' (Majumdar, *India*, p. 398).

⁸ S says 'brown pear colour'.

The Country of Pang-ko-la

As the language of the country they all adopt Pang-ko-li,¹ which constitutes an independent tongue, though there are also some people who speak the Pa-erh-hsi² language.

The king of the country uses silver to cast a coin named a *t'ang-ch'ieh*;³ each coin weighs three *ch'ien*⁴ on our official steelyard; the diameter, [in terms of] our official [Page 60] *ts'un*, is one *ts'un* two *fen*;⁵ it has lines⁶ on the reverse; [and] in every purchase and sale they all use this coin for calculating prices in petty transactions. The cowrie goes by the foreign name of *k'ao-li*;⁷ [and] in trading they calculate in units [of this article].⁸

The customs of the people, and the rites relating to capping,⁹ funerals, sacrifices, and marriages all conform with the regulations of the Muslim religion.¹⁰

Throughout the four seasons [of the year] the climate is always hot, like summer.

The rice and grain ripen twice in a year. The husked and unhusked rice is slender and long; they mostly have small red rice. Unhusked rice, wheat, sesame, all kinds of beans, glutinous millet, ginger, mustard, onions, garlic, gourds, and vegetables—all these they have. For fruits, they have bananas.¹¹

For wines, they have three or four varieties—coconut-wine, rice-wine, tree-wine, and *chiao-chang*¹² wine; they are made in all sorts of ways; [and] mostly they have distilled wines. Tea is not sold in the markets; [and] men use *pin-lang*¹³ for entertaining people.

The market-streets contain all kinds of shops—bathing-establishments, wine-shops, food-shops, sweetmeat-shops, and other such shops—all these they have.

¹ Giles, nos. 8662; 6069; 6870; presumably Bengali.

² Giles, nos. 8511; 3333; 4031; 'Farsi', that is, Persian.

³ Giles, nos. 10,756; 1558; the *tanka*.

⁴ This is the reading of S; C has '2 *ch'ien*'; 3 *ch'ien* equalled 172.68 grains or 0.359 ounce troy, and the present value of the silver content, if pure, would be 3s. 4d. The purchasing power of a *tanka* was about 12 times that of the present rupee (Majumdar, *India*, p. 398, n. 1), now equal to 1s. 6d.

⁵ That is, 1.4 inches.

⁶ Or 'characters'.

⁷ Giles, nos. 5966; 6942; 'cowrie'.

⁸ S and K say 'they also calculate'; that is, in addition to the *tanka*.

⁹ 'Receiving the cap which indicated that he [the youth on reaching man's estate] was now recognized as an adult.'

¹⁰ Ma Huan ignores the Hindu population.

¹¹ Composing carelessly, Ma Huan enumerates other fruits a little further on.

¹² *Kajang*; Ma Huan probably refers to the beverage made from *Nipa fruticans*. He uses *kajang* as a Chinese word.

¹³ *Pinang*, areca-nut.

Ying-yai sheng-lan chiao-chu

Camels, horses, donkeys, mules, water-buffaloes, yellow oxen, goats, sheep, geese, ducks, fowls, pigs, dogs, cats, and other such domestic animals—all these they have.

For fruits, they have jack-fruit, sour fruits, pomegranates, sweet sugar-cane, and other such varieties.

As to their sweetmeats: they have such things as granulated sugar, white sugar, crystallized sugar, crystallized fruits, honey-preserves, and crystallized ginger.

The land produces five or six kinds of fine cloths.

One kind is a *pi*¹ cloth, of which the foreign name is *pei-po*;² the breadth is more than three *ch'ih*, and the length five *chang* six or seven *ch'ih*;³ [and] this cloth is as fine as starched paper.

One kind is a ginger-black⁴ cloth, of which the foreign name is *man-che-t'i*;⁵ the breadth [Page 61] is about four *ch'ih*, and the length over five *chang*;⁶ [and] this cloth is closely-woven and strong.

One kind has the foreign name of *sha-na-pa-fu*;⁷ the breadth is five *ch'ih*, and the length three *chang*;⁸ it is quite like a raw plain crepe; it is a cotton crepe.

One kind has the foreign name of *hsin-pai-ch'in-ta-li*;⁹ the breadth is three *ch'ih*, and the length six *chang*;¹⁰ the stitches of the cloth are fine and equal; it is a cotton gauze; [and] they all use this cloth to bind round the head.

¹ Giles, no. 9002; the word is probably an abbreviated transliteration of some unknown foreign word. This fine white glossy cloth is often mentioned in Chinese texts. See Pelliot, 'Voyages', pp. 424-6. For '*pi* cloth', Kung Chen writes *ts'ao pu*, 'grass cloth'.

² Giles, nos. 8759; 9350; for the second character C writes *chih*, K *te*, and S is silent; Feng supplies the character *po* (Giles, no. 9350) from the books of Chang Sheng and Huang Sheng-tseng. The expression *pei-po* is not in the dictionaries and has not been explained.

³ The equivalent of 3 *ch'ih* was 36.7 inches, and 5 *chang* 6 *ch'ih* equalled 57 feet 1 inch.

⁴ Feng does not explain why he writes 'ginger-black'; all three texts have 'ginger-yellow', that is, turmeric.

⁵ Giles, nos. 7622; 542; 11,003; the name has not been explained or the cloth identified; the last two characters may represent 'chintz'; see Pelliot ('Voyages', p. 426). Perhaps *man-che-t'i* represents the piece-goods called by Milburn *bejutapauts*; see Yule and Burnell, p. 706a.

⁶ The equivalent of 4 *ch'ih* was 48.9 inches, and 5 *chang* equalled 51 feet.

⁷ Giles, nos. 9624; 8106; 8510; 3666; the Chinese name for this cotton crepe is a transliteration of the Persian *sanah-baf*; see Pelliot, 'Voyages', pp. 426-7, and Yule and Burnell, under 'Shanbaff', p. 823a.

⁸ The equivalent of 5 *ch'ih* was 61.2 inches, and 3 *chang* equalled 30 feet 7 inches.

⁹ Giles, nos. 4566; 8556; 2097; 10,485; 6942; this is the reading of C; S has *hsin-pai-le-ta-li*, K *i-pai-le-ta-li*, and Kung Chen *hsi-pai-le-ta-li*; the name has not been explained; see Pelliot, 'Voyages', pp. 427-8.

¹⁰ The equivalent of 3 *ch'ih* was 36.7 inches, and 6 *chang* equalled 61 feet 2 inches.

The Country of Pang-ko-la

One kind has the foreign name of *sha-t'a-erh*;¹ the breadth is two *ch'ih* five or six *ts'un*, [and] the length is more than four *chang*;² it resembles a good triple-thread³ cotton cloth.

There is one kind with the foreign name of *mo-hei-mo-le*;⁴ the breadth is four *ch'ih*, [and] the length more than two *chang*;⁵ [and] on both sides⁶ it has a raised flossy surface four or five *fen* thick;⁷ it is a *tou-lo* cotton [cloth].⁸

Mulberry trees, wild mulberry-trees, silk-worms, and cocoons—all these they have; [but] can make only fine silks, embroidered silk kerchiefs, and coarse silks; they do not understand how to make silk-floss.⁹

Lacquered articles, basins, bowls, steel, spears, knives, scissors,¹⁰ and other such articles—all these they have for sale. There is a kind of white paper which is also made from tree-bark; it is glossy and smooth—like deer-skin.¹¹

The laws of the country provide for light bambooning, heavy bambooning, degrees of banishment,¹² and other such punishments.¹³

Grades of officials, yamens, and sealed despatches—all these they have.¹⁴ The army also has officials who control the issue of rations. The commander-in-chief of the army is called *pa-ssu-la-erh*.¹⁵

¹ Giles, nos. 9624; 10,514; 3333; this is the reading of C; S has the same sounds; K writes *sha-shan-erh*; the Chinese name is a transliteration of the Indian word *chautar*, 'anything with four threads', apparently identical with *chautahi*, 'fourfold', a cloth used in the Punjab for counterpanes; see Pelliot, 'Voyages', pp. 428-9, and Yule and Burnell, under 'Chudder', p. 217b, and p. 706b (piece-goods).

² The equivalent of 2 *ch'ih* 5 *ts'un* was 30.6 inches, and 4 *chang* equalled 40 feet 9 inches.

³ Literally, 'three shuttles'.

⁴ Giles, nos. 7997; 3899; 7997; 6814; K has *li* for the second character; Pelliot considered that the Chinese name was a transliteration of the word *mahmal*, 'velvet', and that the cloth was a cotton velvet (Pelliot, 'Voyages', pp. 429-30).

⁵ The equivalent of 4 *ch'ih* was 48.9 inches, and 2 *chang* equalled 20 feet 4 inches. All three texts have '2 *chang*', but Feng's copy of K wrongly writes '4 *chang*'.

⁶ *Pei mien* (Giles, nos. 8774; 7886), 'back face'; the editor is advised that this means 'on the back and on the front'; Pelliot ('Voyages', p. 429) translated 'on the reverse'.

⁷ The equivalent of 4 *fen* was 0.48 inch.

⁸ *Tou-lo mien* (Giles, nos. 11,424; 7291; 7884); a composite phrase of which the first two characters represent the Sanskrit word *tula*, 'cotton' (Pelliot, 'Voyages', p. 430), while *mien* means 'soft, downy'. S, unnoticed by Pelliot or Feng, says that this fabric is like the velvet of the Central Country'.

⁹ Feng here prefers the fuller statement in K.

¹⁰ For 'knives, scissors', S has 'bows, arrows'.

¹¹ S adds that the paper is 'likeable', attractive.

¹² *T'u liu* (Giles, nos. 12,126; 7248); *t'u* meant banishment to another part of the same province for a term not exceeding three years, and *liu* meant banishment for life to another province distant two or three thousand *li*.

¹³ For the administration of justice see Majumdar, *India*, p. 393.

¹⁴ For the civil administration see Majumdar, *India*, pp. 392-3.

¹⁵ Giles, nos. 8511; 10,262; 6653; 3333; representing the last three syllables of the Persian title *sipah-salar*, 'army-leader'; see Yule and Burnell, under 'Sipasalar', p. 840b. For the military administration see Majumdar, *India*, p. 394.

Physicians, diviners, astrologers, [*Page 62*] experts in every art and craft—all these they have.

As to their itinerant musicians; over the body they put on patterned shirts of white cloth embroidered with black threads; round the lower [part of the body they have] a coloured silk kerchief; round the shoulders and neck they set a fringe made of beads¹ of every colour interspersed with coral beads² threaded together; also, on both arms they wear bracelets made of blue and red beads fused together. When men entertain guests at a feast, these people come too, to provide the music; they dance to the chanting of [their] foreign songs; and in some [dances] they repeatedly separate.³

They have a class of persons named *ken-hsiao-su-lu-nai*,⁴ that is, musicians; every day during the period of the five night watches⁵ they go to the porch of a chief or a wealthy family; one man blows a *so-nai*,⁶ one man beats a small drum, and one man beats a large drum; when they start, [the music] is slow, and they themselves beat the measure; later [the music] gradually becomes urgent and insistent; and [then] they stop.⁷

They go to [another] house; as before they blow [the *so-nai*] and beat [the drums]; and [then] they go away. At meal-time they go again to the various houses; and they are either given wine and food, or they are given money.

All kinds of jugglers and acrobats—all these they have; [but] they do nothing very unusual. Only there is one kind [of unusual performance]; a man and his wife tie an iron rope round a large tiger, and pull it with them as they walk along the street; when they come to a man's house, they perform their act; that is, they undo the iron rope, and make the tiger sit down on the ground; the man, with bare body and holding only a switch, dances in front of the tiger; he hits it with his fists; he takes hold of the tiger and kicks and beats it; the tiger's temper rises to a terrible pitch;⁸ it roars, and

¹ *Hsiao tzu chu* (Giles, nos. 4301; 12,317; 2549); literally, 'nitre-beads'; perhaps meaning beads in the form of crystals (Pelliot, 'Voyages', pp. 357-8). Duyvendak ('Hsi-yang chi', p. 9, n. 3) says *hsiao tzu* was imitation crystal produced from certain powders (as ingredients) by burning.

² S and K have 'coral and amber beads'.

³ Apparently Ma Huan means that from time to time some of the dancers broke away from the others, danced separately, and then joined up again. Kung Chen adds that the dancing is well worth seeing.

⁴ Giles, nos. 5974; 4295; 10,330; 7388; 8121; Feng adopts the reading of C and S; K for the second character has *tang*. The expression remains unexplained.

⁵ Ordinarily this would mean from 7 p.m. to 5 a.m.

⁶ A sketch of the Indian *sawai* (*shahnai*) will be found in Ambrose, p. 29. This pipe has an unequalled sweetness and appeal.

⁷ On Indian music and dancing see Ambrose, or Thomas, pp. 112-18, or S. Swarup, *The Arts and Crafts of India and Pakistan* (Bombay, 1957), pp. 1-14.

⁸ K adds 'it lashes its tail'.

The Country of Pang-ko-la

makes a show of attacking the man; [then] both the man and the tiger fall down in front of each other, and the engagement is finished.

Then again [the man] will take one of his arms and stretch it out into the tiger's mouth—right as far as its throat—and the tiger will not dare to bite him.

Then the man [*Page 63*] puts the rope round the tiger's neck once more, and it lies down on the ground and begs for food; the household thereupon give it some meat to eat, and also give some money to the man, and he goes away.

As to the fixing of their calendar:¹ they also take twelve moons to constitute one year; there are no intercalary moons; [and] the dates of the solar periods are computed, as to their beginning and ending, when their times approach. The king also sends men to travel on board ship to the various foreign countries to trade; [and] he procures and buys local products, pearls, and precious stones, which are presented as tribute to the Central Country.

THE COUNTRY OF HU-LU-MO-SSU²

[HORMUZ]

Setting sail from the country of Ku-li,³ you go towards the north-west; [and] you can reach [this place] after travelling with a fair wind for twenty-five days.⁴ The capital lies beside the sea and up against the mountains.

Foreign ships from every place and foreign merchants travelling by land all come to this country to attend the market and trade; hence the people of the country are all rich.⁵

¹ Literally, 'days and moons'. Ma Huan obviously refers to the lunar calendar of the Muslims; for the Hindu calendar see Thomas, pp. 140-2.

² Giles, nos. 4927; 7388; 7994; 10,265; a transliteration of the local name 'Hurmuz'. This maritime city-state was situated in 27° 03' N, 56° 27' E, on the island called Jazireh Hormuz near the mouth of the Persian Gulf. In theory, the prince of the royal family was subordinate to the governor of Fars (Faris) province in Persia, and he paid dues to Sultan Shahrukh (1405-47), sovereign of the Timurid empire which included Persia. In practice, the prince was an independent and powerful ruler, whose domains extended for 100 miles around, with a sphere of influence considerably more extensive. Hormuz constituted a great commercial centre, wherein was concentrated the sea-borne traffic from the Far East and India and the overland traffic from Khurasan, Iraq, and Persia. Hormuz was a rich military and civil aristocracy. Ma Huan gives no indication that the city was situated on an island. For Hormuz see Hsiang Ta, *Kung Chen*, pp. 41-4; Fei Hsin, ch. 1, pp. 35-7 (Rockhill, Part II, pp. 605-7); *Ming shih*, p. 7921, row 4 (Bretschneider, vol. II, pp. 132-5); Dames, vol. I, p. 97, n. 2; J. Aubin, 'Les Princes d'Ormuz du XIII^e au XV^e siècle', *Journal Asiatique*, vol. CCXLI (1953), pp. 113-27; Schrieke, pt. II, p. 384, n. 12; Hitti, pp. 699, 702; Serjeant, p. 11.

³ Calicut.

⁴ Representing a voyage of 61 sea-miles a day. In 1432-3 Cheng Ho's main fleet took 34 days for the voyage, representing a speed of 45 sea-miles a day.

⁵ After the conquest of Persia by the Mongols the main trade route from India to the Mediterranean had been diverted from the Persian Gulf to the Red Sea

The king of the country and the people of the country all profess the Muslim religion; they are reverent, meticulous, and sincere believers; every day they pray five times, [and] they bathe and practise abstinence.¹ The customs are pure and honest. There are no poor families; if a family meets with misfortune resulting in poverty, everyone gives them clothes and food and capital, and relieves their distress.

The limbs and faces of the people are refined and fair, and they are stalwart and fine-looking. Their clothing and hats are handsome, distinctive, and elegant.

In their marriage- and funeral-rites they all obey the regulations of the Muslim religion.

When a man marries a wife, he first employs a go-between, and after the rites have been complied with, the man's family² arranges a feast, to which he invites the *chia-ti*³—the *chia-ti* is the official who superintends the regulations of the religion—[Page 64] and the people in charge of the wedding, and the go-between, [and] the eldest of the relatives. The two families inform each other about their local origin and antecedents for three generations back, and after the execution of the marriage-documents has been settled, they later choose a day for concluding the marriage. Were not this done, the authorities would regard it as adultery and punish them.⁴

If a man dies, they use a white foreign cloth⁵ to robe [the body] at both the full dressing and the first dressing;⁶ they have a pitcher full of clean water, and take the body and wash it from head to foot two or three times; after the cleansing, they fill⁷ the mouth and nose of the body with musk and camphor; then they wrap it in shrouds, put it in the coffin, and bury it immediately.

The grave is built with layers of stone; [and] at the bottom of the grave they spread five or six *ts'un*⁸ of clean sand; they carry the coffin thither and

(Schrieke, pt. 1, p. 9); despite this, Hormuz was still a busy port, through which passed Asian products to Tabriz, Trebizond, and Samarkand (Schrieke, pt. II, p. 384, n. 12). Ma Huan's poem mentions merchants from Ferghana and Cairo.

¹ The Mongol destroyers of the Abbasid caliphate adopted Islam in the fifteenth century (R. Grousset, *Histoire de l'Extrême-Orient* (Paris, 1929), vol. II, pp. 488–9).

² C says 'the woman's family'.

³ Giles, nos. 1444; 10,978; a transliteration of the Arabic *kadi*, 'a judge'; he was the Muslim ecclesiastical judge; see Yule and Burnell, under 'Cazee', p. 177b.

⁴ Under Islamic law the punishment for adultery is death.

⁵ S adds 'very fine'.

⁶ Literally, 'great dressing little dressing'. These are technical terms of Chinese funeral custom; 'little dressing' was the first dressing, immediately after death; 'great dressing' was the full dressing, immediately before the body was put into the coffin (private communication from Dr S. C. Wu).

⁷ C has *hsün* (Giles, no. 4859), 'perfume', hence Duyvendak (*Ma Huan*, p. 66) translates 'scent nose and mouth'. ⁸ The equivalent of 5 *ts'un* was 6.1 inches.

The Country of Hu-lu-mo-ssu

then remove the coffin, merely taking the body and placing it in the stone grave; they securely cover the top with stone slabs, and superimpose clean earth, making a thick and well-rammed grave-mound, very solid and neat.

In their diet the people must use butter; it is mixed and cooked in with their food. In the market roast mutton, roast chicken, roast meat, wafer-cakes, *ha-la-sa*,¹ and all kinds of cereal foods—all these are for sale. Many² families of two or three persons do not make up a fire to prepare a meal—they merely buy cooked food to eat.

The king uses silver to cast a coin named a *ti-na-erh*;³ the diameter, [in terms of] our official *ts'un*, is six *fen*;⁴ on the reverse side it has lines;⁵ the weight is four *fen* on our official steelyard;⁶ it is in universal use.

Their writing is all in Muslim characters.⁷

Their market-places have all kinds of shops, with articles of every description; only they have no wine-shops; [for] according to the law of the country wine-drinkers are executed.⁸

Civil and military officials, physicians, and diviners are decidedly superior to those of other places. Experts in every kind of art and craft—all these they have.

¹ The first two characters are Giles, nos. 3754; 6654; the third character is not in the dictionaries; Pelliot ('Voyages', p. 432) takes it to be pronounced *sa*, as Giles, no. 9523; C has *ha-tx'u-sa*; K has *ha-li-sa*; S is silent. In all probability the correct reading should be *ha-li-sa*, as in K, being a transliteration of the Arabic word *harisa*, a dish composed of meat and pounded grain. The editor is indebted to Professor C. F. Beckingham for this identification. ² K has 'all'.

³ Giles, nos. 10,902; 8090; 3333; *dinar*. Only K has the correct reading. The wrong reading *na-ti-erh* appears in the book of Huang Sheng-tseng and must therefore have figured in Ma Huan's first printed edition of 1451 (Pelliot, 'Voyages', p. 432).

⁴ That is, 0.7 inch.

⁵ Or 'characters'. In writing *ti mien*, 'back face', Ma Huan probably meant the same thing as *mien ti*, 'face back', that is, on the obverse and on the reverse (Pelliot, 'Voyages', pp. 432-3). Kung Chen has *mien ti*.

⁶ That is, 23 grains or 0.0479 ounce troy; if the silver was pure, the value of the content would now be 5.3*d*. Fei Hsin states that both gold and silver coins were in use at Hormuz, but does not expressly say that they were minted there; he does not give their weights. Ma Huan misleads us into thinking that no gold coin was in use at Hormuz. Dames (vol. 1, p. 99, n. 1) asserted that the princes of Hormuz, being subject to the Timurid rulers of Persia, did not mint their own coins; and he rejected, on this point, the evidence of Barbosa and, by implication, of Ma Huan. He concluded that the gold coin used there was the *dinar* minted by the Persian Mongols, and that the silver coin was the *larin*, called by Barbosa *tanga*, coined under the Timurid kings. It seems doubtful whether this latter coin, worth 1*s*. 5*d*. in the time of Barbosa, was identical with Ma Huan's silver *dinar*.

⁷ The characters of the Persian language, that is, Arabic; compare Duyvendak, 'Dates', p. 360, n. 3. Chinese Muslims have long used, and still use, Arabic characters (private communication from Dr S. C. Wu).

⁸ Literally, 'cast out in the market', a euphemism for decapitation. The law prescribes flogging, not death (Duyvendak, *Ma Huan*, p. 66, n. 3).

Their juggling and acrobatic performances are none of them unusual; but there is [Page 65] one kind [of unusual performance]—[in which] a goat mounts a high pole—; [this] is most amusing; for this trick they use a wooden pole about one *chang* long;¹ on the top of this wooden pole, it is only just possible to set the four hooves of the goat on the wood; they take the pole, set it firmly on the ground, and hold it steady; [then]² the man leads up a small white billy-goat; he claps his hands and does a sing-song; the goat capers about to the beat of the drum, and comes up close to the pole.

First, it takes its two fore-feet and places them firmly on the pole; next, it takes its two hind-feet and with one jerk sets them on the pole; next, a man takes a wooden pole and leans it over in front of the goat's legs; the goat again takes its two fore-feet and places them on the top of the pole; afterwards it takes its two hind-legs and raises them up with a jerk;³ whereupon the man holds the pole steady; while standing on the tops of the two poles, the goat makes posturing movements like dancing gestures; [a man] brings another pole and joins it on,⁴ adding five or six lengths in succession to the top⁵ and increasing the height by about a *chang*;⁶ after⁷ the [goat] has stopped dancing, it stands upon the middle pole; whereupon the man pushes away the pole and catches the goat in his hands.⁸

Then again, he will order [the goat] to lie on the ground and appear to be dead; when he orders it to stretch out its fore-legs, it stretches out its fore-[legs]; [and] when he orders it to stretch out its hind-legs, it stretches out its hind-[legs].

Then again, there is [a man who] takes along a large black monkey about three *ch'ih*⁹ high; after it has performed all manner of clever tricks, [the man] directs a bystander to take a kerchief, fold it up several times, and tie it tightly round both eyes of the monkey; he directs a different person to give the monkey a surreptitious hit on the head and hide himself in the thick of the crowd; after this [the man] releases the kerchief and directs [the monkey] to seek out the person who struck him on the head; however vast the

¹ That is, 10 feet 2 inches.

² As in S.

³ At this stage the goat had all four legs on the second pole, which was somewhat higher than the first pole.

⁴ *Tsan* (Giles, no. 11,533), 'to hasten, to urge on'; the editor is advised to translate it 'join'; S has *ai*, 'leans it over'.

⁵ Presumably the goat ascended at each stage.

⁶ Thus the total height was about 20 feet.

⁷ *Ssu* (Giles, no. 10,281), 'when'; Feng has altered the reading *chien* (Giles, no. 1627), 'sharp', which apparently he considered unintelligible.

⁸ Duyvendak noted that a similar goat-trick was still performed at places round the Red Sea (Duyvendak, *Ma Huan*, p. 67, n. 1).

⁹ That is, about 36·7 inches.

The Country of Hu-lu-mo-ssu

crowd, the monkey goes straight to the man who originally [struck him] and picks him [*Page 66*] out; it is most strange.

The climate of the country [includes] cold weather and hot weather;¹ in the spring the flowers bloom, and in the autumn the leaves fall; they have frost, [but] no snow; rain is rare, [but] the dew heavy.

They have one large mountain, the four faces of which produce four kinds of articles. One face produces salt, like that of the sea-side—red in colour;² the people chisel out a lump with an iron hoe—like quarrying stone; some lumps weigh thirty or forty *chin*;³ moreover, it is not damp, and when they want to eat it, they pound it into powder for use. One face produces red earth—like the red colour of vermilion.⁴ One face produces white earth—like lime; it can be used for white-washing walls. One face produces yellow earth—like the yellow colour of turmeric.

In all cases chiefs are ordered to superintend [the quarrying]. Of course they have travelling merchants who come from every place to purchase [these products] and sell them to be used.

The land produces rice and wheat, [but] not much; it is all bought in different places and comes here to be sold; the price is extremely cheap.

For fruits⁵ they have walnuts, *pa-tan*⁶ fruit, pine-nuts, pomegranates, raisins, dried peaches, apples, Persian dates,⁷ water-melons, cucumbers,⁸ onions, leeks, shallots, garlic, carrots, melons,⁹ and other such things. The carrots—red, and as large as a lotus-root—are very plentiful. The melons are very large; some [stand] two *ch'ih* high.¹⁰ The walnuts have a thin white shell,¹¹ which breaks when you squeeze it in the hand. The pine-nuts are about a *ts'un* long.¹²

The raisins are of three or four kinds; one kind resembles a dried date, and is purple; one kind is as large as a lotus-seed, has no pips, and is candied;¹³

¹ S reads 'In this place during the four seasons the climate resembles that of the Central Country'.

² K has 'salt like red alum'.

³ The equivalent of 30 *chin* was 39·4 pounds avoirdupois. S has '300 *chin*', and K '300-400 *chin*'.

⁴ Red oxide is still worked in the interior of the island.

⁵ S adds 'and vegetables'.

⁶ Persian *badam*, 'almond'.

⁷ Literally, 'ten-thousand-year jujubes'.

⁸ *Ts'ai kua* (Giles, nos. 11,513; 6281), 'cucumbers' (Pelliot, 'Voyages', p. 434), omitted by Duyvendak (*Ma Huan*, p. 68).

⁹ Ma Huan carelessly confuses melons with his description of carrots; Feng has restored the proper order; Pelliot ('Voyages', pp. 433-4) also proposed this change.

¹⁰ That is, about 24·4 inches.

¹¹ S says 'the kernel is white, the shell is very thin'.

¹² That is, about 1·2 inches.

¹³ S has 'frosty-white like sugar'; K reads 'candied a frosty-white'.

[and] one kind is round, as large as a white bean, and rather white in colour. The *pa-tan*¹ fruit resembles a walnut; [Page 67] it is pointed, long, and white; [and] inside there is a kernel which in flavour surpasses the flesh of the walnut. The pomegranates are as large as tea-cups. The apples are as big as [one's] fist²—very fragrant and delicious.

The Persian dates³ are also of three kinds. One kind bears the foreign name of *to-sha-pu*;⁴ each fruit is as large as [one's] thumb; it has a small stone; it is candied, like granulated sugar; [and], being excessively sweet, it is not pleasant to eat. One kind is mashed and made into twenty or thirty large lumps;⁵ it has the taste of a good dried persimmon⁶ and of a date-plum.⁷ One kind resembles a jujube,⁸ [but] is somewhat larger; the taste is rather acrid; [and] the people use it to feed to cattle.

In this place they have all the precious merchandise from every foreign country.

Further, there are blue, red, and yellow *ya-ku* stones,⁹ and red *la*,¹⁰ *tsu-pa-pi*,¹¹ *tsu-mu-la*,¹² 'cat's-eyes', diamonds,¹³ and large pearls—as big as longan¹⁴ fruits, and one *ch'ien* two or three *fen*¹⁵ in weight—, coral-tree beads,

¹ Persian *badam*, 'almond'.

² The absence of a properly constructed grammatical sentence has misled Duyvendak into saying that the pomegranate flowers are red, and misled Huang Sheng-tseng into writing that the pomegranate flowers are like fists (Pelliot, 'Voyages', p. 434).

³ Literally, 'ten-thousand-year jujubes'.

⁴ Giles, nos. 13,327; 9624; 9479. The editor is indebted to Professor C. F. Beckingham for the explanation that the term is a transliteration of the Persian word *dushab*, which nowadays means 'date syrup'.

⁵ Kung Chen, more intelligibly, says that they are mashed into lumps weighing 20 or 30 *chin*.

⁶ *Shih ping* (Giles, nos. 9906; 9288); *Diospyros Kaki* (Pelliot, 'Voyages', p. 434).

⁷ *Juan tsao* (Giles, nos. 5712; 11,623); *Diospyros lotus*.

⁸ Literally, 'southern jujube'; see Pelliot, 'Voyages', p. 434.

⁹ Blue *yakut* is sapphire, red *yakut* ruby, and yellow *yakut* yellow corundum or sapphire, known to jewellers as Oriental topaz (Bretschneider, vol. 1, p. 174, nn. 503, 504, and p. 175, nn. 506, 508).

¹⁰ Giles, no. 6653; denoting *lal*, the Persian name for the balas ruby.

¹¹ Giles, nos. 11,826; 8514; 9009; denoting *dsobab* (properly *dhubab*), 'flies', meaning 'cantharides', flies with beautiful green wings, a name applied by the Arabs to a first-quality emerald of a deep green colour (Duyvendak, *Ma Huan*, p. 68; Bretschneider, vol. 1, p. 174, n. 500).

¹² Giles, nos. 11,826; 8067; 6653; probably intended for *zamrud* or *samurod*, general names for emerald in Persian and Arabic (Bretschneider, vol. 1, p. 174, n. 501).

¹³ *Chin kang tsuan* (Giles, nos. 2032; 5895; 11,882). According to Shu Hsin-Ch'eng the expression means a diamond; according to Lu Erh-K'uei it means diamond-dust, a meaning accepted by Duyvendak and Pelliot (Pelliot, 'Voyages', p. 434).

¹⁴ *Lung yen* (Giles, nos. 7479; 13,129); 'dragon's eyes', *Nephelium longana* (Pelliot, 'Voyages', p. 434); 'longan' of the larger dictionaries.

¹⁵ The equivalent of 1 *ch'ien* 2 *fen* was 69 grains.

The Country of Hu-lu-mo-ssu

branches, and stems, and golden amber, amber beads, rosary beads, wax amber, black amber (of which the foreign name is *sa-pai-chih*),¹ all kinds of beautiful jade utensils, crystal utensils, and ten kinds of flowered pieces of brocaded velvet (on which the nap rises one or two *fen*, the length being two *chang* and the breadth one *chang*),² woollens³ of every kind, *sa-ha-la*⁴ [cloth], felt,⁵ *mo* crepe, *mo* gauze,⁶ all kinds of foreign kerchiefs with blue and red silk embroidery, and other such kinds of things—all these are for sale. Camels, horses,⁷ mules, oxen, and goats are plentiful.

Their goats are of four kinds.⁸ One kind is the big-tailed sheep; each animal weighs seventy or eighty *chin*;⁹ the tail is more than one *ch'ih* broad,¹⁰ [*Page 68*] drags along the ground, and weighs more than twenty *chin*.¹¹ One kind is the dog-tailed goat; it resembles a mountain goat; [and] the tail is more than two *ch'ih* long.¹² One kind is the fighting goat; its height is two *ch'ih* seven or eight *ts'un*;¹³ on the front half portion the hair is long and drags on the ground; on the back half portion it is all trimmed clean; the head, face, neck, and forehead resemble the sheep; the horns curve round towards the front; [and] on them it carries a small iron plate, which makes a sound when

¹ Giles, nos. 9523; 8556; 1847. The term may be a transliteration of the Persian *sah-boi*, 'amber'; but in that case the third character, *chih*, is unexplained, and Feng thought that it must be an error for a character pronounced *i*; on the other hand Kung Chen writes *chih ch'ien*, 'having a money value', and the editor of his book applies this expression to the 'beautiful jade utensils' next mentioned. It will be noticed that Ma Huan restricts the name *sa-pai-chih* to black amber; Pelliot ('Voyages', p. 435) preferred the text of Huang Sheng-tseng (ch. III, f. 8v) who applies the term to ambers in general ('ambers are called *sa-pai-chih*'); on the other hand, Professor C. F. Beckingham suggests that when writing *sa-pai-chih* Ma Huan might have in mind the Arabic word *sabai*, meaning 'jet'.

² The equivalent of 1 *fen* was 0.1 inch; 2 *chang* equalled 20 feet 4 inches; 1 *chang* equalled 10 feet 2 inches.

³ *So-fu*, woollens and other foreign fabrics.

⁴ Persian *sakallat*, broadcloth.

⁵ Pelliot ('Voyages', p. 438) thought that this word was wrongly introduced; it does not appear in S or K.

⁶ The character *mo* is not in the ordinary dictionaries; Professor Homer H. Dubs explains that these were woven hairy goods, and Professor C. F. Beckingham quotes Persian *mu*, 'hair, down, or the pile of a carpet'; on the other hand Pelliot ('Voyages', p. 438) thought that *mo* crepe and *mo* gauze were different kinds of muslins.

⁷ Feng omits the next word, 'donkeys', which appears in all three texts.

⁸ Ma Huan fails to distinguish clearly between goats and sheep, and he describes only three kinds; the fourth kind was probably that called the 'nine-tailed sheep' by Huang Sheng-tseng (ch. III, f. 8v).

⁹ The equivalent of 70 *chin* was 92 pounds avoirdupois.

¹⁰ That is, more than 12.2 inches.

¹¹ That is, more than 26.3 pounds avoirdupois.

¹² That is, more than 24.4 inches.

¹³ The equivalent of 2 *ch'ih* 7 *ts'un* was 33 inches.

[the animal] moves; this goat by nature delights in fighting; [and] novelty-seekers rear it in their houses so that it may fight for money-wagers with [the animals of other] men as a sport.

Again, [the place] produces a kind of animal called 'fly-o'er-the-grass'; the foreign name is *hsi-ya-kuo-shih*;¹ it is as big as a large cat; all over its body [it has markings] exactly like tortoise-shell or cantharides; the two ears are pointed² and black; its nature is mild, not vicious; if lions, leopards, or other such fierce beasts see it, they prostrate themselves on the ground; indeed it is king among the beasts.³

The king of this country, too, took a ship and loaded it with lions, *ch'i-lin*,⁴ horses,⁵ pearls, precious stones, and other such things, also a memorial to the throne [written on] a golden leaf; [and] he sent his chiefs and other men, who accompanied the treasure-ships despatched by the Emperor, which were returning from the Western Ocean; [and] they went to the capital and presented tribute.⁶

¹ Giles, nos. 4105; 12,807; 6621; 9951; a transliteration of the Persian name *siyah-gosh*, 'black ears', the lynx, *Felis caracal* (Pelliot, 'Voyages', pp. 438-9; Yule and Burnell, under 'Shoe-Goose', p. 831a). The Chinese form has to be constructed from the *ya-huo-shih* of C, *hsi-ya-kuo* of S, and *hsi-ya-kuo-chih* of K. The suggestion of Duyvendak (*Ma Huan*, p. 69, n. 7), *khargush*, 'hare', exemplifies the danger of relying on sound alone.

² In suggesting 'iron' for the nonsensical 'lost' of C, Pelliot ('Voyages', p. 439) overlooked the fact that S has 'pointed'.

³ Presumably that is what the Hormuz people thought of this terrible animal; the Aden people regarded the lion as the king of beasts.

⁴ Giraffe.

⁵ Ma Huan does not indicate how many of these various animals were sent; after 'horses', C adds *p'i* (Giles, no. 9086), a numerative of cloth, etc.; presumably this character is used for *p'i* (Giles, no. 9029), a numerative of horses; this latter is the reading of S and K.

⁶ Ma Huan does not state the date. He probably refers to the seventh expedition of 1431-3. The king of Hormuz was then Sai-fu-ting, that is, Saifu'd-Din Mahar (1417/18-1436/7); the envoys were Ma-la-tsu and others (Aubin, p. 113; *Ming shih*, p. 7922, row 1; Pelliot, 'Notes', pp. 295-6).

The Country of The Heavenly Square

THE COUNTRY OF THE HEAVENLY SQUARE¹

[MECCA]

[Page 69] This country is the country of Mo-ch'ieh.² Setting sail from the country of Ku-li,³ you proceed towards the south-west—the point *shen* on the compass;⁴ the ship travels for three moons,⁵ and then reaches the jetty of this country. The foreign name for it is Chih-ta;⁶ [and] there is a great chief who controls it. From Chih-ta you go west,⁷ and after travelling for one day⁸ you reach the city where the king⁹ resides; it is named the capital-city of Mo-ch'ieh.²

They profess the Muslim religion. A holy man¹⁰ first expounded and spread

¹ *T'ien fang* (Giles, nos. 11,208; 3435); Mecca (Makka); the Chinese name refers to the Ka'ba or 'cube house' (Hirth and Rockhill, p. 125, n.). Mecca, the holy city of Islam, visited by pilgrims from all over the world, lies about 55 miles east of the port of Jidda (Judda), 21° 29' N, 39° 11' E. The region as a whole was called 'Mecca' (Bellorini and Hoade, p. 86, n. 1, relating the visit of L. di N. Frescobaldi in 1384); it extended some 300 miles north to Medina (24° 35' N) and Yenbo (24° 05' N), and an equal distance south to Djizan (16° 54' N). The sharif of Mecca, being at this time a vassal of the Egyptian sultan, was not a figure of any political significance, but he maintained a theocratic control over the Hejaz (Sir H. A. R. Gibb and J. H. Kramers (eds.), *Shorter Encyclopaedia of Islam* (Leyden-London, 1953), p. 374; Serjeant, p. 5). The country had no economic importance, but the religious pilgrimage was made the occasion for extensive commercial exchanges (Bellorini and Hoade, p. 144, n. 1; N. M. Penzer (ed.), *The Itinerary of Ludovico di Varthema of Bologna* (London, 1928), p. 19). For Mecca see Hsiang Ta, *Kung Chen*, pp. 44–6; Fei Hsin, ch. 2, pp. 25–7 (Rockhill, Part II, pp. 619–21); Huang Sheng-tseng, ch. 3, f. 13; *Ming shih*, p. 7941, row 2; G. de Gaury, *Rulers of Mecca* (London, 1951), pp. 27, 28, 52, 100, 103, 104; Gibb and Kramers, p. 374; Gibb, *Encyclopaedia of Islam* (II), vol. 1, pp. 1053, 1054; Serjeant, p. 5.

² Giles, nos. 8021; 1558; a transliteration of the original name 'Makka'.

³ Calicut.

⁴ Ma Huan is not quite accurate; the character *shen* (Giles, no. 9816) denotes 240°, and south-west (225°) is denoted by the character *k'un* (Giles, no. 6540); moreover, the direction from Calicut to Ras Asir (Capo Guardafui) is west, not south-west.

⁵ The distance is about 2,500 sea-miles; thus, the average distance covered in a day would be about 26 sea-miles.

⁶ Giles, nos. 1883; 10,473; Jidda; K alone provides the correct reading for the first character; C and S have *yang*. Jidda was not only the port of Mecca, but the terminus of the Indian fleet; and it became a commercial mart of the first importance.

⁷ This statement is wrong; you travel east from Jidda to Mecca.

⁸ The journey normally took 2 days; nowadays, on excellent roads provided from oil-revenues, it can be done in 2 hours.

⁹ When the Chinese mission went from Calicut to Mecca in 1432, the sharif of Mecca was Barakat bin Hasan, who ruled from 1425 to 1453 (Serjeant, p. 5). Each year the sharif received his diploma of appointment and robe of honour from Egypt.

¹⁰ The Prophet Muhammad, the founder of Islam, was born at Mecca about A.D. 570; after preaching there from about 612 to 622, he fled to Medina (Madina); 15 July 622, the date of the Flight (or Hijra), is the epoch of the Muslim Hijri (Hegira) era (Smith, p. 39; Gibb, *The Travels*, vol. 1, p. 167, n. 50).

the doctrine of his teaching in this country, and right down to the present day the people of the country all observe the regulations of the doctrine in their actions, not daring to commit the slightest transgression.

The people of this country are stalwart and fine-looking, and their limbs and faces are of a very dark purple colour.¹

The menfolk bind up their heads; they wear long garments; [and] on their feet they put leather shoes. The women all wear a covering over their heads, and you cannot see their faces.

They speak the A-la-pi language.² The law of the country prohibits wine-drinking. The customs of the people are pacific and admirable. There are no poverty-stricken families. They all observe the precepts of their religion, and law-breakers are few. It is in truth a most happy country.

As to the marriage- and funeral-rites: they all conduct themselves in accordance with the regulations of their religion.

If you travel on from here for a journey of more than half a day, you reach the Heavenly Hall mosque;³ the foreign name for this Hall is K'ai-a-pai.⁴

All round it on the outside is a wall; this wall has four hundred and sixty-six openings; on both sides of the openings are pillars all made of white jade-stone; of these pillars there are altogether four hundred and sixty-seven—along the front ninety-nine, along the back one hundred and one, along the left-hand side one hundred and thirty-two, [and] along the right-hand side one hundred and thirty-five.⁵

The [Page 70] Hall is built with layers of five-coloured stones; in shape it is square and flat-topped. Inside, there are pillars formed of five great beams of sinking incense wood, and a shelf⁶ made of yellow gold. Throughout the interior of the Hall, the walls are all formed of clay mixed with rose-water and ambergris, exhaling a perpetual fragrance.⁷ Over [the Hall] is a

¹ Giles, nos. 12,329; 10,761; a very colloquial expression.

² Arabic.

³ The statement is incorrect; the great mosque stands in the heart of Mecca; for a plan of the city see Gibb, *The Travels*, vol. 1, facing p. 190.

⁴ Giles, nos. 5797; 1; 8856. Surrounded by massive walls, the sanctified area is a vast, unroofed rectangle; in the centre of this area stands the House of God, the Ka'ba, 'cube', a small square towering granite building (The Sayed Idries Shah, *Destination Mecca* (London, 1957), pp. 77, 79, and photographs facing pp. 84, 92). The Ka'ba was improved, restored, or rebuilt from time to time.

⁵ For an account of the mosque in Ibn Battuta's time (1326) see Gibb, *The Travels*, vol. 1, pp. 191-3 (with plan).

⁶ *Ko* (Giles, no. 6037). Kung Chen writes *ch'eng lou*, 'a receptacle for drippings', that is, drippings from the candles. The editor is indebted to Professor Homer H. Dubs for this explanation. Duyvendak translated *ko* as 'screens', and Pelliot, though disagreeing, hesitated to suggest an alternative (Pelliot, 'Voyages', p. 441).

⁷ Ma Huan's description differs in several respects from the account of the Ka'ba given by Ibn Battuta, as to which see Gibb, *The Travels*, vol. 1, pp. 193-6. Ibn Battuta

The Country of The Heavenly Square

covering of black hemp-silk.¹ They keep two black lions to guard the door.²

Every year on the tenth day of the twelfth moon all the foreign Muslims—in extreme cases making a long journey of one or two years—come to worship inside the Hall.³ Everyone cuts off a piece of the hemp-silk covering as a memento before he goes away. When it has been completely cut away, the king covers over [the Hall] again with another covering woven in advance; this happens again and again, year after year, without intermission.⁴

On the left of the Hall is the burial-place of Ssu-ma-i,⁵ a holy man; his tomb is all made with green *sa-pu-ni*⁶ gem-stones; the length is one *chang* two *ch'ih*,⁷ the height three *ch'ih*,⁸ and the breadth five *ch'ih*,⁹ the wall which surrounds the tomb is built with layers of purple topaz,¹⁰ [and] is more than five *ch'ih* high.⁹

makes no mention of perfume, but we are told that at a ceremonial cleaning in 1398 the walls were rubbed with civet, musk, and ambergris, and the higher part of the building was drenched with civet (de Gaury, p. 54).

¹ The mantle (*kiswa*, garment), with which the exterior of the Ka'ba was draped; for this mantle see Gibb, *The Travels*, vol. 1, pp. 203, 247; the right to provide this covering was a privilege of the Egyptians, consecrated by immemorial custom (Idries Shah, p. 85; Gibb, *Encyclopaedia of Islam* (II), vol. 1, fasc. 17 (1959), p. 1054).

² This, the only known reference to lions, is quite incomprehensible. Professor C. F. Beckingham comments that either live or sculptured lions in such a place are unthinkable.

³ The circuit of the Ka'ba on the tenth day of the twelfth month (Dhu'l-Hijja) technically completed the pilgrimage, but certain rites had to be performed before that day; for the mediaeval and the modern rites compare Gibb, *The Travels*, vol. 1, pp. 242–7 and Idries Shah, pp. 81–5.

⁴ Compare Ibn Jubair's statement that the Bedouins of the highlands tore the outside mantle to shreds if they could reach it (Gibb, *The Travels*, vol. 1, p. 237, n. 188); nowadays the mantle is cut up and pieces are distributed to fortunate pilgrims (Idries Shah, p. 85).

⁵ Giles, nos. 10,250; 7576; 5455; Isma'il (Ishmael); according to Ibn Battuta the tomb of Isma'il was situated in a small site called the *Hijr*, 'enclosure', on the north side of the Ka'ba, enclosed by a low semi-circular wall (Gibb, *The Travels*, vol. 1, pp. 194, 199). Huang Sheng-tseng (ch. III, f. 11) refers to Isma'il as an 'ancient Buddha', and Pelliot ('Voyages', p. 442) commented that the expression shows the wholly relative value of the terms used by a Chinese man of letters when speaking of a foreign religion.

⁶ Giles, nos. 9523; 9456; 8197; *sabuni*, 'soap-green', the Persian name of a pale and inferior kind of emerald (Bretschneider, vol. 1, p. 174, n. 502). Ibn Battuta says that the wall was of green marble (Gibb, *The Travels*, vol. 1, p. 196).

⁷ That is, 12 feet 2 inches.

⁸ That is, 36.7 inches.

⁹ That is, 61.2 inches.

¹⁰ The texts are very corrupt; see Pelliot, 'Voyages', pp. 442–4. Feng and Pelliot preferred S which has 'purple yellow-jade'. Yellow-jade is the topaz or chrysolite. Ibn Battuta says that the wall was made of 'exquisite marble', but mentions no colour (Gibb, *The Travels*, vol. 1, p. 199).

Ying-yai sheng-lan chiao-chu

Inside the wall [of the mosque], at the four corners, are built four towers;¹ at every service of worship they ascend these towers, call to the company, and chant the ceremonial. On both sides, left and right, are the halls where all the patriarchs have preached the doctrine;² these, too, are built with layers of stone, and are decorated most beautifully.

As to the climate of this place: during [all] the four seasons it is always hot, like summer, and there is no rain, lightning, frost, or snow. At night the dew is very heavy; plants and trees all depend on the dew-water for nourishment; [and] if at night you put out an empty bowl to receive it until day-break, the dew-water will be three *fen*³ [deep] in the bowl.

As to the products of the land: rice and grain are scarce; [*Page 71*] [and] they all cultivate such things as unhusked rice, wheat, black⁴ millet, gourds, and vegetables.⁵ They also have water-melons and sweet melons; [and] in some cases it takes two men to carry each single fruit. Then again they have a kind of tree with twisted flowers, like the large mulberry-tree of the Central Country; it is one or two *chang*⁶ in height; the flowers blossom twice a year; [and] it lives to a great age without withering. For fruits,⁷ they have turnips, Persian dates,⁸ pomegranates, apples,⁹ large pears, and peaches, some of which weigh four or five *chin*.¹⁰

Their camels, horses, donkeys, mules, oxen, goats, cats, dogs, fowls, geese, ducks, and pigeons are also abundant. Some of the fowls and ducks weigh over ten *chin*.¹¹

The land produces rose-water, *an-pa-erh*¹² incense, *ch'i-lin*,¹³ lions, the 'camel-fowl',¹⁴ the antelope, the 'fly-o'er-the-grass',¹⁵ all kinds of precious stones, pearls, corals, amber, and other such things.

¹ Ibn Jubair described seven, and Ibn Battuta five, minarets (Gibb, *The Travels*, vol. 1, p. 203, n. 66).

² Duyvendak (*Ma Huan*, p. 72, n. 3) thought that Ma Huan had probably confused the elevation called the Place of Abraham with the four elevations, one on each side of the Ka'ba, where the prayer-leader (*imam*) of each of the four recognized law schools (Hanafi, Hanbali, Maliki, and Shafi'i) recited the prayers to his congregation.

³ That is, 0.3 inch.

⁴ K has 'beans' for 'black'.

⁵ Mecca relied on supplies from Egypt and Yemen, and experienced difficulty when supplies were cut off (de Gaury, p. 61).

⁶ The equivalent of 1 *chang* was 10 feet 2 inches.

⁷ C has 'vegetables', which Feng changes.

⁸ Literally, 'ten-thousand-year jujubes'.

⁹ Duyvendak omitted to translate *hua*, 'flowers'; on the strength of the list given by Huang Sheng-tseng (ch. III, f. 13) Feng adds the character *hung*, 'red', reading *hua hung*, the colloquial name for the apple.

¹⁰ The equivalent of 4 *chin* was 5.2 pounds avoirdupois.

¹¹ The equivalent of 10 *chin* was 13.1 pounds avoirdupois.

¹² Ambergris.

¹³ Giraffe.

¹⁴ Ostrich.

¹⁵ Lynx.

The Country of The Heavenly Square

The king uses gold to cast a coin named a *t'ang-chia*,¹ which is in current use; each has a diameter of seven *fen*,² and weighs one *ch'ien*³ on our official steelyard; compared with the gold of the Central Country it is twenty per cent purer.⁴

If you go west again and travel for one day, you reach a city named Mo-ti-na;⁵ the tomb of their holy man Ma-ha-ma⁶ is situated exactly in the city; [and] right down to the present day a bright light rises day and night from the top of the grave and penetrates into the clouds. Behind the grave is a well, a spring of pure and sweet water, named A-pi San-san;⁷ men who go to foreign parts take this water and store it at the sides of their ships; if they meet with a typhoon at sea, they take this water and scatter it; [and] the wind and waves are lulled.

In the fifth year of the Hsüan-[*Page 72*]te [period]⁸ an order was respectfully received from our imperial court that the principal envoy the grand eunuch Cheng Ho and others should go to all the foreign countries to read out the imperial commands and to bestow rewards.

When a division of the fleet reached the country of Ku-li,⁹ the grand eunuch Hung¹⁰ saw that this country was sending men to travel there;

¹ *Tanka*.

² That is, 0.8 inch.

³ That is, 3.73 grammes or 57.56 grains or 0.11991 ounce troy. If the gold was pure, the gold content would now be worth 29s. 11d. Nowadays the only gold coin in use is the English sovereign.

⁴ Hence, if the Meccan gold was pure, Chinese gold of the time was 83.3 per cent pure.

⁵ Giles, nos. 7997; 10,902; 8106; Medina (al-Madina). The statement of direction and distance is wrong; in truth, Medina lies some 300 miles north of Mecca, and the journey by caravan takes about 10 days.

⁶ Giles, nos. 7376; 3754; 7591; the Prophet Muhammad. His burial chamber, now generally called the Hujra or 'Chamber', is situated in the south-eastern corner of the mosque of Medina (Gibb, *The Travels*, vol. 1, pp. 165, n. 44, 166). Ma Huan avoids the error made by several mediaeval travellers who state that the Prophet's tomb was at Mecca.

⁷ Giles, nos. 1; 8922; 9556; 9556; the mediaeval pronunciation of the third and fourth characters was *ts'an*. The expression is a transliteration of the Persian phrase Ab-i Zamzam, 'Water of Zamzam'. The statement that the well was at Medina is incorrect; it lay close to the Ka'ba at Mecca; see Gibb, *The Travels*, vol. 1, pp. 192, 199-200. The use of Persian words, coupled with the inaccuracies of this description, led Duyvendak to conclude (a) that Ma Huan did not personally visit Mecca or Medina, and (b) that he knew the Persian rather than the Arabic language (Duyvendak, *Ma Huan*, p. 73). Nowadays the water from the well is raised by electric pumps (Idries Shah, p. 86).

⁸ 1430. Ma Huan refers to Cheng Ho's seventh and last expedition (1431-3).

⁹ This implies that the fleet had previously been divided; S, however, states that the division was made at Calicut.

¹⁰ Kung Chen calls him Hung Pao. Presumably this was the assistant-envoy Hung Pao who participated in the erection of the commemorative stones at Liu chia chiang and Ch'ang lo on 14 March 1431 and 5 December 1431, respectively (Duyvendak, 'Dates', pp. 343, 355).

whereupon he selected an interpreter and others, seven men in all, and sent them with a load of musk, porcelain articles, and other such things; [and] they joined a ship of this country and went there.¹ It took them one year to go and return.²

They bought all kinds of unusual commodities, and rare valuables, *ch'i-lin*, lions, 'camel-fowls', and other such things; in addition they painted an accurate representation of the 'Heavenly Hall';³ [and] they returned to the capital.⁴

The king of the country of Mo-ch'ieh also sent envoys⁵ who brought some local articles, accompanied the seven men—the interpreter [and others]—who had originally gone there, and presented the articles to the court.

The 'facing day' of the autumn moon in [the cyclic year] *hsin-wei* of the Ching-t'ai [period]⁶.

Written by Ma Huan, the mountain-woodcutter of Kuei chi.

¹ Ma Huan uses ambiguous language; the editor follows Pelliot in interpreting it to mean that Hung Pao's emissaries joined Calicut men in a Calicut ship (Pelliot, 'Voyages', pp. 303-4); it might almost equally well mean that they joined Meccan men in a Meccan ship (Duyvendak, *Ma Huan*, p. 74) or joined Chinese men in a Chinese ship. Pelliot ('Voyages', p. 304) thought that Ma Huan was one of the seven emissaries and visited Mecca.

² Ma Huan is again ambiguous; he means, the editor is advised, that the emissaries arrived back in China a year after they left Calicut; compare Pelliot, 'Voyages', pp. 303-4; 'Notes', p. 298.

³ The Ka'ba.

⁴ Peking.

⁵ A note in Huang Sheng-tseng (ch. III, f. 13) says that the king sent a minister named Sha Wan (Giles, nos. 9624; 12,489) and others. Duyvendak (*Ma Huan*, p. 74, n. 3) noted that this envoy, as in many other cases, will have been an ordinary merchant, assuming an official guise.

⁶ The 'facing day' was the fifteenth day of the moon, because on that day the moon faces the sun. The 'autumn moon' was probably the second moon of autumn; in which case the date will be 9 September 1451 (Pelliot, 'Voyages', p. 257, n. 1).

KU P'O'S AFTERWORD OF 1451(?)¹

AFTERWORD²

TO

THE OVERALL SURVEY OF THE OCEAN'S SHORES

When I was young, I looked at [a book called] *A Record of Foreign Places*,³ and I learnt about the extent of the earth's surface, about the difference in customs, about the appearance of human beings, and about the different varieties of products—astounding, pleasant, attractive, striking [things].

Yet I suspected that the book was written by a novelty-seeker, and I ventured to think that such things did not exist in reality.

Now I see the actual facts in the record made by Master Ma Tsung-tao⁴ and Master Kuo Ch'ung-li⁵ of their experiences in the various foreign countries, and I see for the first time that the statements in *A Record of Foreign Places* are credible and not false.

Ch'ung-li is a man from Jen ho in Hang,⁶ and Tsung-tao is a man from Kuei chi in Yueh.⁷ Both profess the religion of the Heavenly Square⁸ in the Western Regions, and are truly excellent gentlemen.

Some time ago The Grand Exemplar The Emperor⁹ issued an imperial order that the grand eunuch Cheng Ho should take general command of the

¹ This heading does not appear in Feng's book.

² Literally, 'After Notice'. This Afterword, called Postface by Duyvendak and Pelliot, appears only in C. Feng has taken some readings from the Afterword of a MS book called 'San Pao cheng-i chi', 'Collected [Accounts] of San Pao's Conquests of the Barbarians', a work which is known only from a notice (Pelliot, 'Voyages', pp. 257-8; 'Encore', p. 211). The present Afterword has been translated by Duyvendak, *Ma Huan*, pp. 10-13.

³ *I-yü chih* (Giles, nos. 5505; 13,662; 1922); see Pelliot, 'Voyages', pp. 260-1.

⁴ 'Tsung-tao' (Giles, nos. 11,976; 10,780) was the 'style' or 'courtesy name' of Ma Huan.

⁵ Giles, nos. 6617; 2930; 6949; nothing is known about him or his contribution to Ma Huan's book. 'Ch'ung-li' is his 'style'; we do not know his 'personal name'; see Duyvendak, *Ma Huan*, p. 12.

⁶ Jen ho was a district (*hsien*) forming with Ch'ien t'ang hsien the prefectural city of Hang chou in Chekiang province.

⁷ Kuei chi was a district (*hsien*) forming with Shan yin hsien the prefectural city of Shao hsing, about 26 miles south-east of Hang chou. Yueh was the name of an area comprising parts of modern Kiangsi and Chekiang provinces.

⁸ Mecca. This statement is the source of our knowledge that Ma Huan was a Muslim.

⁹ The emperor Hsüan-tsung whose 'reign-title' was Hsüan-te.

Ku P'o's Afterword

treasure-ships and go to the various foreign countries in the Western Ocean to read out the imperial commands and bestow rewards for meritorious service; and these two gentlemen, being skilled interpreters of foreign languages, received appointments in this [capacity].

Three times they accompanied [Cheng Ho's] train, travelling ten thousand *li*. They started out from Wu hu¹ in Min;² first they put in to Chan city,³ then Chao-wa⁴ and Hsien Lo,⁵ then again Old Haven,⁶ A-lu,⁷ Su-men,⁸ Nan-p'o,⁹ Hsi-lan,¹⁰ and Ko-chih;¹¹ most distant of all, A-tan¹² and the Heavenly Square¹³ were visited—in all more than twenty countries. In each country they stayed and travelled for many a day.

As to the extent of the earth's surface, they noted the difference in distances. As to the diversity of customs, they noted the difference in morals. As to the appearance of the people, they noted the difference in their attractiveness. As to the products of the land, they noted the difference in their importance. All these things they recorded in writing. Their record completed, they made a book. They certainly expended care and industry.

Their task completed, the two gentlemen returned to their native villages, and constantly went out to enlighten other people, to enable everybody to acquire knowledge about conditions in foreign regions, and to see how far the majestic virtue of our imperial dynasty extended—far-flung as in this [book].¹⁴

Ch'ung-li, still concerned at his inability to make people fully acquainted with the facts, wishes to avail himself of the printed word¹⁵ in order to spread his message. Through his friend Lu-T'ing-yung¹⁶ he has asked me for a notice; accordingly I have recorded this summary after [his work].¹⁷

Written by Ku P'o, [styled] Chi-hung, Supervising and Inspecting Imperial Clerk in this year.¹⁸

¹ Five Tigers strait in the Min estuary.

² Min was the name of an area comprising the greater part of the modern Fukien province.

³ Champa, Central Vietnam.

⁴ Java.

⁵ Thailand.

⁶ Palembang.

⁷ Aru, Deli district in eastern Sumatra.

⁸ That is, Su-men-ta-la, Semudera, Lho Seumawe in northern Sumatra.

⁹ That is, Nan-p'o-li, Lambri, Atjeh in northern Sumatra.

¹⁰ Ceylon.

¹¹ Cochín.

¹² Aden.

¹³ Mecca.

¹⁴ The last sentence represents a translation of 15 characters added by Feng to C.

¹⁵ Literally, 'wishes to engrave the catalpa' (*tzu*); the classical *tzu* (Giles, no. 12,356) has been identified with *ch'iu* (Giles, no. 2303), *Catalpa kaempferi*, a wood much used for cutting blocks for printing. Thus it was Kuo Ch'ung-li who pressed for the book to be printed.

¹⁶ Otherwise unknown.

¹⁷ The editor translates this last sentence in accordance with Pelliot's understanding of the passage; Duyvendak had previously expressed the opinion that this Afterword had originally been a Preface; see Duyvendak, *Ma Huan*, p. 13 and Pelliot, 'Voyages', pp. 261-2.

¹⁸ This sentence represents a translation of 11 characters added by Feng to C on the authority of the 'San Pao cheng-i chi'. Ku P'o is otherwise unknown. The date was probably 1451. See Pelliot, 'Encore', p. 211.

CHINA IN SOUTHERN ASIA, 1433

Those who study fifteenth-century Asia cannot complete their researches adequately unless they know the location of the places mentioned in the sources. The best sources are Chinese works; but those works have so far proved of limited value, since in the first place the information which they contain is often vague and fabulous, and in the second place the local names have not been satisfactorily explained by modern writers; so much so that until 1918 'Sri Vijaya', although a maritime empire of very great importance, remained unknown.¹ For long periods during the last two thousand years China was the first power in Asia, and Chinese knowledge of Asian countries constitutes a subject both interesting and important.

China itself has been dealt with by Playfair,² and central and western Asia by Bretschneider.³ In the present essay an attempt is made to take the matter a step further by covering southern Asia in 1433. The date 1433 is selected because the conclusion of Cheng Ho's last expedition marked the end of the great period of Chinese exploration; the Ming government then turned its back on the outside world; 'the barbarians and their customs had been sufficiently well known; further contact was decidedly not to be desired'.

By southern Asia we normally mean Asia south of Hormuz, 27° 03' N; but, for the sake of convenience, certain places in northern India, Pakistan, and eastern Africa have been included; and Formosa is excluded because it falls within the Chinese area.

The material and explanatory matter is derived from a number of works which have already been quoted in this book, namely, Bretschneider, Chang Hsieh, Chao Ju-kua (Chinese text), Coedès (*États*), Duyvendak ('Dates'), Fairbank and Teng, Feng Ch'eng-chün (*Fei Hsin* and *Ma Huan*), Fuchs, Gibb (*The Travels*), Grousset, Hirth and Rockhill, Hsiang Ta (*Cheng Ho* and *Kung Chen*), Huang Sheng-tseng, Kuwabara, Le Thanh Khoi, Lü P'an and Lu Ch'eng-en, Majumdar (*India*), Mao K'un Map, Mao Yüan-i, *Ming shih*, Pao Tsen-peng, Pelliot ('Itinéraires', 'Les Hoja', and 'Voyages'),

¹ Purcell, pp. 13, 15.

² Playfair, *The Cities and Towns of China*.

³ Bretschneider, *Mediaeval Researches*.

Appendix 1

Rockhill, Sastri (*South India*), Schrieke, 'Shun-feng hsiang-sung', Smith, and Wheatley (*Khersonese*). In addition, certain other sources are utilized, that is, Beames, Chou Ch'ü-fei (Chinese text), Feng Ch'eng-chün (*Hsi-yü ti-ming*), Herrmann, Li Hsien, Sellman, Shih Yung-t'u, *Sung shih*, T'ung Shih-heng, Wang Ta-yüan (Chinese text), and Watters.¹

By far the most informative source is the Mao K'un Map, which supplies about half of the seven hundred place-names appearing in the accompanying gazetteer, and as a rule indicates the approximate position of the places marked. The sailing directions constitute a most valuable guide, and frequently enable a place to be located with greater precision than the Mao K'un Map.

It will be seen that the citations include (a) pre-Ming works such as Chou Ch'ü-fei, (b) Ming works of the period from 1368 to 1433, (c) later Ming works such as Chang Hsieh, and Ch'ing works such as the *Ming shih*, and (d) modern writers such as T'ung Shih-heng. Pre-Ming names are included only if it seems reasonably certain that, like Ma-li-pa (Mirbat), they must have survived into Ming times. So, too, post-1433 names are included only if it seems reasonably certain that they must have existed in 1433; thus, Jou-fo (Johor) is excluded, and the names given by Chang Hsieh (1618) are included since (a) he records a voyage to Halmahera, and the Chinese ceased sailing to the Molucca islands before 1430, and (b) most of the names are mentioned in the 'Shun-feng hsiang-sung', which Needham dates as of about 1430. Such names as are mentioned only in the manuscript sailing directions are excluded. Most assistance has been derived from the writings of Herrmann, Feng Ch'eng-chün, and Fairbank and Teng, who have located about one hundred, ninety, and sixty, respectively, of the places falling within the scope of this enquiry.

In general, all places having some political, historical, economic, geographical, navigational, or other significance are included; for instance, the

¹ J. Beames, 'Notes on Akbar's Subahs', *Journal of the Royal Asiatic Society* (1896), pp. 83-136. Chou Ch'ü-fei, *Ling-wai tai-ta*, 'Beyond the Range (Written to Answer Queries)' (1178, *Chih-pu-tsu chai* collection, An-hui, eighteenth century). Feng Ch'eng-chün, *Hsi-yü ti-ming*, 'Names of Places in the Western Regions' (2nd ed., Peking, 1957). A. Herrmann, *Atlas of China* (Cambridge, Mass., 1935). Li Hsien, *Ta Ming i-t'ung chih*, 'A Comprehensive Record of the Great Ming [Empire]' (c. 1450. Wan Shun T'ang K'an edition). R. R. Sellman, *An Outline Atlas of Eastern History* (London, 1954). Shih Yung-t'u, *Hai-yun yao-lueh*, 'An Abstract of the Essentials of Sea-Transport' (c. 1840). *Sung shih*, 'Sung History', by T'o T'o and others (c. 1345). Vol. VII of *Erh-shih-wu shih*, 'The Twenty-five Histories' (K'ai-ming shu-tien edition, Shanghai, 1935). T'ung Shih-heng, *Li-tai chiang-yü hsing-shih i-lan t'u*, 'Compact Maps of the Configuration of the Frontiers during successive Dynasties' (5th ed., Shanghai, 1922). Wang Ta-yüan, *Tao-i chih-lueh*, 'A Synoptical Account of the Islands and their Barbarians' (1350; Chih-fu ch'ai edition, 1892). T. Watters, *On Yuan Chwang's Travels in India* (London, vol. 1, 1904; vol. II, 1905).

small island of Pulau Aur is included because it was of great importance to navigators. Places whose location is completely unknown are excluded, also villages of minimal importance; but no attempt is made to draw a hard and fast line between places which should and should not be included. A reference is given for every entry in the gazetteer; if possible, the reference is to a Ming source, but in a few cases it is necessary to quote an earlier authority; where the source is the Mao K'un Map, only the folio number is mentioned; and Feng Ch'eng-chün's edition of Ma Huan is referred to simply as 'Feng'.

No distinction is made between a town and the surrounding country bearing the same name, such as Pai-ku (Pegu); but there are separate entries for different countries bearing the same name, for instance, A-wa (Ava in Burma) and A-wa (Ahmadabad in western India?). Different appellations are given for the same place, for instance, Chen la and Kan-po-chih for Cambodia; but where variants of the same name are involved, there are separate entries only if the first syllable is different; if the first syllable is the same, a variant form is added in brackets; thus, in the case of Cambodia, there are separate entries for Kan-po-chih and Chien-pu-chai, but after 'Kan-po-chih' is added '(Kan-p'o-che)'.

In settling the alphabetical order, the rule is adopted that the entity of the Chinese syllables must be preserved; thus, Ai-lao follows A-wa; and, subject to that rule, the strict alphabetical order is observed, so that Ta-wai precedes Ta wan and Hsüeh shan precedes Hu chiao shan. The aspirated consonant is written immediately after the unaspirated; thus, names beginning with Ch'i follow immediately after names beginning with Chi. Syllables are separated unless it seems reasonably certain that they were joined in the original tongue; thus, the syllables 'Ya shu tsai chi' (the Daimanayat islands) are separated, but in 'Feng-chia Shih-lan' (Panga Sinan) the appropriate syllables are hyphenated. Such co-ordinates are added as may enable the reader to locate places without difficulty.

For convenience interior India is divided into (a) southern India, below 15° N, (b) central India, from 15° N to 25° N, (c) northern India, above 25° N. Where the modern charts or standard atlases do not mark a place, we must have recourse to other maps; but some places are not marked on such recent maps as are ordinarily available, and in these cases it is necessary to give the approximate location derived from descriptions, for instance, in the case of Chia-i-lo (Old Kayal).

The entries in the gazetteer are numbered; and the map at the end of the volume (Fig. 11) includes the names of places when we are reasonably certain of their location; in other cases the number is written in what appears to be the approximately correct position. The number of uncertainties is

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regrettably large; and this follows from the fact that our sources are silent, incorrect, deficient, or ambiguous; or from the fact that we do not yet know how to interpret them; thus, we do not always know which Chinese language or dialect was used to represent the original sound of a name; for instance, the modern Pekingese sounds *Shao wu* as applied to a river in Halmahera convey nothing; but the Amoy colloquial pronunciation *Tiau-bu* at once makes it certain that the reference is to the Tiabo river.

GAZETTEER

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|----|------------|---|
| 1 | 阿 者 刁 | <i>A-che-riao</i> Anjidiv, island, 14° 45' N, off the west coast of India. [f. 20v] |
| 2 | 阿 胡 那 | <i>A-hu-na</i> A place represented as situated 1° 36' north of Dhufar (Salala, 17° N), on the south coast of Arabia; perhaps Ras al Madraka, 19° N. [f. 21] |
| 3 | 阿 羅 漢 | <i>A-lo-han</i> Arakan, country, c. 20° 33' N, on the west coast of Burma. [Herrmann, p. 55] |
| 4 | 阿 魯 | <i>A-lu</i> Deli district in eastern Sumatra. [<i>Ming shih</i> , p. 7919, row 2]. See Ya-lu. |
| 5 | 阿 撥 把
丹 | <i>A-po-pa-tan</i> A country bordering on Kan-pa-li, Coimbatore; perhaps Puttanapur, 9° 06' N, 76° 51' E, in southern India. [<i>Ming shih</i> , p. 7922, row 1] |
| 6 | 阿 丹 | <i>A-tan</i> Aden, town, 12° 47' N, 44° 59' E, on the south coast of Arabia. [f. 20v] |
| 7 | 阿 瓦 | <i>A-wa</i> Ava, town, 21° 45' N, 95° 55' E, in Burma. [Herrmann, p. 55; Fairbank and Teng, p. 184] |
| 8 | 阿 哇 | <i>A-wa</i> A country 'beyond' central Gujarat in western India; perhaps the district of Ahmadabad, c. 23° 00' N, 72° 40' E. [<i>Ming shih</i> , p. 7922, row 2] |
| 9 | 哀 牢 | <i>Ai lao</i> Ai lao, country, c. 20° 30' N, 103° 20' E, in northern Laos. [Le Thanh Khoi, p. 219 and map 12; Chang Hsieh, p. 4] |
| 10 | 安 南 | <i>An nan</i> Tongking. [<i>Ming shih</i> , ch. 321]. Name changed from Chiao chih to An nan in 1174 [<i>Sung shih</i> , p. 4560, row 3]. By the Vietnamese called Dai Co Viet in 968, Dai Viet in 1069, and Vietnam from 1804 onwards. |
| 11 | 岸 塘 | <i>An i'ang</i> [Cliff wall]. A place near the north-western extremity of Luzon; perhaps Cape Bojeador, 18° 30' N. [Chang Hsieh, p. 123] |
| 12 | 安 得 盤
山 | <i>An-te-man shan</i> [An-tu-man: wrongly, So-lu-man]. Andaman islands (Middle Andaman, c. 12° 40' N), in the Bay of Bengal. [f. 18v] |

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| 13 | 安 | 都 | 里 | <i>An-tu-li liu</i> Androth island, 10° 49' N, one of the Laccadive islands. [f. 20] |
| 14 | 溜 | 魚 | 山 | <i>Ao yü shan</i> [Scorpaena fish mountain]. Buaja [Crocodile] island, 0° 10' N, 104° 13' E, off the east coast of Sumatra. [f. 15 v] |
| 15 | 查 | 實 | | <i>Ch'a-shih</i> Jask, village, 57° 46' E, on the Makran coast of Persia. [f. 21 v] |
| 16 | 察 | 地 | 港 | <i>Ch'a-ti-chiang</i> Chittagong. [Feng, <i>Fei Hsin</i> , ch. 1, p. 39]. See Sa-ti-chiang. |
| 17 | 占 | 城 | | <i>Chan ch'eng</i> [Champapura, City of the Chams]. (a) The Cham capital of Fo-shih (Vijaya), ruins about 15 miles north-west of Qui Nhon [Pelliot, 'Itinéraires', p. 202]. (b) The country of Champa (name obsolete), central Vietnam. [f. 12] |
| 18 | 占 | 臘 | | <i>Chan la</i> Cambodia. [f. 13]. See Chen la. |
| 19 | 占 | 臘 | 港 | <i>Chan la chiang</i> [Chan La anchorage]. Song Soirap (river), c. 10° 35' N, in South Vietnam. [f. 13] |
| 20 | 詹 | 卑 | | <i>Chan-pei</i> Djambi, town, 1° 35' S, 103° 37' E, in eastern Sumatra. [Chang Hsieh, p. 121] |
| 21 | 占 | 賁 | 港 | <i>Chan-pen chiang</i> A river in the Gulf of Thailand; perhaps Maenam Chanthaburi (Chentabun river), mouth in 12° 27' N, 102° 02' E. [f. 13] |
| 22 | 占 | 筆 | 羅 | <i>Chan-pi-lo shan</i> Culao Cham (island), 15° 57' N, off the east coast of Vietnam. [Chang Hsieh, p. 119] |
| 23 | 占 | 浦 | 山 | <i>Chan p'u shan</i> Nui Chau Vien, mountain, 10° 24' N, 107° 15' E, on the east coast of South Vietnam. [f. 13] |
| 24 | 纏 | 打 | 兀 | <i>Ch'an-ta-wu-erh</i> [Sindapur, Chintabor]. Goa, town, 15° 30' N, on the west coast of India. [f. 20 v] |
| 25 | 章 | 姑 | | <i>Chang-ku</i> Canggu, village, c. 7° 25' S, 112° 26' E, in eastern Java. [Feng, p. 10] |
| 26 | 長 | 寧 | 鎮 | <i>Ch'ang ning chen</i> 'Perpetual Peace mart', a name applied to the mart of P'o-ni, Brunei. [Huang Sheng-tseng, ch. 1, f. 15 v] |
| 27 | 長 | 腰 | 嶼 | <i>Ch'ang yao hsü</i> [Long Waist island]. Pulau Satumu (Coney islet, Raffles Light), 1° 09' N, 103° 44' E, in Singapore strait. [f. 15 v] |
| 28 | 長 | 腰 | 嶼 | <i>Ch'ang yao hsü</i> [Long Waist island]. Mapor, island, 1° 00' N, 104° 50' E, off the east coast of Bintan island. [Chang Hsieh, p. 121] |
| 29 | 長 | 腰 | 嶼 | <i>Ch'ang yao hsü</i> [Long Waist island]. Labuan island, c. 5° 20' N, off the west coast of Borneo. [Chang Hsieh, p. 124] |

Appendix 1

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| 30 | 長 腰 嶼 | <i>Ch'ang yao hsü</i> [Long Waist island]. An island reached after 5 watches' sailing on the voyage north from Berhala island off the east coast of Sumatra; perhaps Rusuk Buaja island, $0^{\circ} 21' S$, $104^{\circ} 10' E$. [Huang Sheng-tseng, ch. 1, f. 13] |
| 31 | 沼 納 樓
兒 | <i>Chao-na-p'u-erh</i> (Chao-na-fu-erh). Jaunpur, country, c. $25^{\circ} 46' N$, $82^{\circ} 44' E$, in northern India. [<i>Ming shih</i> , p. 7921, row 3] |
| 32 | 爪 哇 | <i>Chao-wa</i> [wrongly, Kua-wa]. Java. [f. 14] |
| 33 | 者 卽 刺
哈 則 刺 | <i>Che chi la ha tse la</i> (Che tse la ha tse la). Written between Mombasa and Mafia island off the east coast of Africa; perhaps 'Jezira, Gezira', island, referring to the islands of Pemba and Zanzibar. [f. 19v] |
| 34 | 浙 地 港 | <i>Che-ti-chiang</i> Chittagong [Feng, p. 59]. See Sa-ti-chiang. |
| 35 | 折 的 希
岸 | <i>Che-ti-hsi-an</i> [error for Che-ti-kao-an]. Satgaon (ruined), town, c. $23^{\circ} 12' N$, $88^{\circ} 28' E$, in west Bengal. [f. 20] |
| 36 | 真 嶼 | <i>Chen hsü</i> [True island]. Non Khoai (Poulo Obi) [f. 13]. See Chen wang hsü. |
| 37 | 真 臘 | <i>Chen la</i> Cambodia. [<i>Ming shih</i> , p. 7915, row 2] |
| 38 | 真 里 馬 | <i>Chen Li-ma</i> [True Li-ma]. A peak of Huo shan, Sangeang island [Chang Hsieh, p. 122]. See Li-ma shan. |
| 39 | 真 不 真
假 不 假 | <i>Chen pu chen chia pu chia</i> [True-not-true False-not-false]. A hill or island near the Tulang Bawang estuary; perhaps Tandjung Bubuyun [Chang Hsieh, p. 121]. See Tu-lu Pa-wang. |
| 40 | 真 王 嶼 | <i>Chen wang hsü</i> [True King island]. Non Khoai (Poulo Obi), island, $8^{\circ} 26' N$, $104^{\circ} 49' E$, 6 miles off the coast of South Vietnam. [Huang Sheng-tseng, ch. 2, f. 1v] |
| 41 | 真 五 嶼 | <i>Chen Wu hsü</i> [True Five islands]. One of the Water islands [Chang Hsieh, p. 121]. See Wu hsü. |
| 42 | 陳 公 嶼 | <i>Ch'en kung hsü</i> An island about 25 miles north of Khao Samroiyot on the east coast of Thailand; perhaps Ko Khi Nok, $12^{\circ} 28' N$. [Chang Hsieh, p. 120] |
| 43 | 陳 公 嶼 | <i>Ch'en kung hsü</i> Pulau Jarak, island, $3^{\circ} 58' N$, $100^{\circ} 05' E$, in Malacca strait. [f. 17] |
| 44 | 雞 唱 門 | <i>Chi ch'ang men</i> [Cock-crow gate]. Cua Hoi (estuary), $18^{\circ} 45' N$, on the east coast of Vietnam. [Chang Hsieh, p. 119] |
| 45 | 積 吉 | <i>Chi-chi</i> Perhaps Tiz, village, $60^{\circ} 36' E$, on the coast of Persian Makran. [Hirth and Rockhill, p. 122, n. 13] |

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- 46 髻 嶼 *Chi hsü* [Coiffure island]. Toren island, c. $120^{\circ} 17' E$, off the south coast of Flores. [Chang Hsieh, p. 122]
- 47 雞 骨 嶼 *Chi ku hsü* Aruah islands, $2^{\circ} 53' N$, $100^{\circ} 34' E$, in Malacca strait. [f. 16v; Chang Hsieh, p. 122]
- 48 急 蘭 丹 *Chi-lan-tan* Kelantan, country, c. $6^{\circ} 08' N$, on the east coast of Malaya. [*Ming shih*, p. 7922, row 1; compare f. 14]
- 49 吉 利 門 *Chi-li-men* (Chi-li-wen). Little Karimun island, $1^{\circ} 08' N$, $103^{\circ} 24' E$, in Singapore strait. [f. 16; Chang Hsieh, p. 121]
- 50 吉 利 閣 *Chi-li-men* (Chi-li-wen). Karimundjawa islands, $5^{\circ} 52' S$, $110^{\circ} 27' E$, in the Java Sea. [Chang Hsieh, p. 122]
- 51 吉 力 石 *Chi-li-shih* Gresik, town, $7^{\circ} 09' S$, on the east coast of Java. [Chang Hsieh, p. 122]
- 52 吉 里 地 *Chi-li Ti-wen* (Chi-li Ti-men). Timor island in the Eastern Archipelago [Chang Hsieh, p. 122]. See Ch'ih-men.
- 53 吉 令 港 *Chi-ling chiang* Sungei Klang estuary, $3^{\circ} 00' N$, on the west coast of Malaya. [f. 16v]
- 54 雞 羅 *Chi-lo* Kerala, also called Ma-lo-pa, Malabar, country, c. $11^{\circ} 00' N$, on the west coast of India. [Feng, *Hsi-yü*, p. 42]
- 55 鷄 籠 嶼 *Chi lung hsü* [Fowl Coop island]. Karimata island [Huang Sheng-tseng, ch. 1, f. 7]. See Chia-li-ma-ta.
- 56 雞 籠 山 *Chi lung shan* [Fowl Coop mountain]. Mountain to the south of Poulo Gambir, on the east coast of central Vietnam; perhaps Niu Mo Cheo, $13^{\circ} 22' N$. [f. 12v]
- 57 吉 茂 *Chi-mieh* 'Khmer', Cambodia. [Hirth and Rockhill, p. 54, n. 1; Herrmann, p. 55]. See Chien-pu-chai.
- 58 吉 那 大 *Chi-na-ta shan* [Cherakah mountain?]. Bukit Cherakah (False Parcellar), hill, $3^{\circ} 14' N$, $101^{\circ} 23' E$, on the west coast of Malaya. [f. 16v]
- 59 吉 寧 馬 *Chi-ning-ma-na shan* Karimata island [Chang Hsieh, p. 122]. See Chia-li-ma-ta.
- 60 吉 哪 具 嶼 *Chi-pei hsü* [Kapas (Cotton) island]. Bukit Jugra [Huang Sheng-tseng, ch. 2, f. 4v]. See Mien hua hsü.
- 61 急 水 灣 *Chi shui wan* [for Chi shui wan t'ou, Swift Water Bay head]. Ujung Djambuaie (Diamond point), $5^{\circ} 15' N$, $97^{\circ} 30' E$, on the north coast of Sumatra. [f. 17v]
- 62 吉 達 港 *Chi-ta chiang* [Kedah anchorage]. Sungei Merbok estuary, $5^{\circ} 40' N$, on the west coast of Malaya. [f. 17]
- 63 吉 陀 *Chi-t'o* Kedah, country, c. $6^{\circ} 00' N$, on the west coast of Malaya. [Feng, *Fei Hsin*, ch. 2, p. 13]

Appendix 1

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| 64 | 起
兒 | 兒
末 | <i>Ch'i-erh-mo-erh</i> [Jaimur]. Chaul, town, 18° 33' N, on the west coast of India. [f. 20v] |
| 65 | 七 | 峯
山 | <i>Ch'i feng shan</i> [Seven Peaks mountain]. A mountain in Palawan island; perhaps Victoria peaks, c. 9° 23' N, 118° 20' E. [Chang Hsieh, p. 124] |
| 66 | 七 | 嶼 | <i>Ch'i hsü</i> [Seven islands]. Tudju islands [Seven islands], c. 1° 10' S, 105° 18' E, off the east coast of Sumatra. [Chang Hsieh, p. 121] |
| 67 | 奇 | 刺
泥 | <i>Ch'i-la-ni</i> A country 'beyond' central Gujarat in western India; perhaps the district of Ghandar, c. 21° 52' N, 72° 37' E. [<i>Ming shih</i> , p. 7922, row 2] |
| 68 | 起 | 來
溜 | <i>Ch'i-lai liu</i> (Kelai island, 6° 58' N), Tiladummati atoll in the Maldivé islands. [f. 19v] |
| 69 | 起 | 荅
兒 | <i>Ch'i-ta-erh</i> A place between Brava and Mombasa on the east coast of Africa; perhaps Ras Kitao, 2° 18' S, on Manda island. [f. 19v] |
| 70 | 加 | 加
溜 | <i>Chia-chia liu</i> Represented as an island of the Laccadive group; perhaps Sacrifice rock, 11° 30' N [f. 20]. See Ha-ha Tieh-wei. |
| 71 | 假 | 嶼 | <i>Chia hsü</i> [False island]. Fausse (False) Poulo Obi, island, 8° 52' N, 104° 31' E, 15 miles off the coast of South Vietnam. [f. 13] |
| 72 | 假
謨 | 忽
斯
魯 | <i>Chia Hu-lu-mo-ssu</i> [False Hormuz]. Qishm island, c. 26° 48' N, 55° 53' E. [f. 22] |
| 73 | 加 | 異
勒 | <i>Chia-i-lo</i> Old Kayal (Cael), town, ruins c. 8° 39' N, on the east coast of India. [<i>Ming shih</i> , p. 7922, row 1] |
| 74 | 加 | 刺
哈 | <i>Chia-la-ha</i> Kalhat, town, 22° 42' N, on the east coast of Arabia. [f. 20v] |
| 75 | 假 | 里
馬 | <i>Chia Li-ma</i> [False Li-ma]. A peak of Huo Shan, Sangeang island [Chang Hsieh, p. 122]. See Li-ma shan. |
| 76 | 假
達 | 里
馬 | <i>Chia-li-ma-ta</i> Karimata island, 1° 36' S, off the west coast of Borneo. [f. 13v] |
| 77 | 咖 | 溜
吧 | <i>Chia-liu-pa</i> [Kelapa]. Sunda Kelapa, now Djakarta, town, 106° 48' E, on the north coast of Java. [Chang Hsieh, p. 121] |
| 78 | 加 | 囉
唏 | <i>Chia-lo-hsi</i> Grahi, country, c. 10° N, 99° E, on the east coast of Thailand. [Chang Hsieh, p. 120; Coedès, <i>États</i> , p. 296] |
| 79 | 加 | 麻
延 | <i>Chia-ma-yen</i> An island in the Philippine islands; perhaps in the Calamian group, c. 11° 50' N, 120° 00' E. [Chao Ju-kua, p. 84] |
| 80 | 夾 | 門 | <i>Chia men</i> 'The Narrows' in Bangka strait [Huang Sheng-tseng, ch. 1, f. 11v]. See Hsia men. |

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| 81 | 加 | 寧 | 八 | <i>Chia-ning-pa-tan</i> Kalingapatam, town, 18° 20' N, on the east coast of India. [f. 20] |
| 82 | 迦 | 毗 | 黎 | <i>Chia-p'i-li</i> Cauvery, river, mouth in 11° 02' N, on the east coast of India. [Feng, <i>Hsi-yü</i> , p. 41] |
| 83 | 加 | 平 | 年 | <i>Chia-p'ing-nien liu</i> Kalpeni atoll (Kalpeni island, 10° 04' N), in the Laccadive islands. [f. 20] |
| 84 | 假 | 五 | 嶼 | <i>Chia Wu hsü</i> [False Five islands. Also Chia wang hsü, False King island]. Cape Rachado, 2° 24' N, on the west coast of Malaya. [f. 16v] |
| 85 | 假 | 五 | 嶼 | <i>Chia Wu hsü</i> [False Five islands]. One of the Water islands [Chang Hsieh, p. 121]. See Wu hsü. |
| 86 | 將 | 軍 | 帽 | <i>Chiang chün mao</i> [General's Hat]. Pulau Tinggi, island, 2° 18' N, off the east coast of Malaya. [f. 15] |
| 87 | 交 | 趾 | | <i>Chiao chih</i> Tongking, North Vietnam [Chang Hsieh, p. 119]. Also called An nan. |
| 88 | 交 | 趾 | 界 | <i>Chiao chih chieh</i> [The border of Chiao chih]. Mon-cay river, mouth in 107° 57' E, the boundary between China and Vietnam. [f. 11v] |
| 89 | 交 | 趾 | 洋 | <i>Chiao chih yang</i> [Chiao chih ocean]. The sea off the coast of North Vietnam, from about 20° N to 15° N. [f. 11v; Chang Hsieh, p. 119] |
| 90 | 交 | 溢 | | <i>Chiao-i</i> [also called Pan-i]. A place on the west coast of Mindanao near the southern extremity; perhaps Kanit bay, 7° 30' N. [Chang Hsieh, p. 124] |
| 91 | 交 | 蘭 | 山 | <i>Chiao-lan shan</i> Gelam islet, 2° 53' S, off the west coast of Borneo. [f. 13v] |
| 92 | 筴 | 杯 | 嶼 | <i>Chiao-pei hsü</i> [Tally islands]. Nui Ong Co and Nui Ong Can, islands, 13° 54' N, off the east coast of central Vietnam. [f. 12; and see Chang Hsieh, p. 119] |
| 93 | 椒 | 山 | | <i>Chiao shan</i> [Pepper mountain]. A place reached after 4 watches' sailing in direction 142½° from Pao-lao-an Shan, Murjo Pegunungan (q.v.); perhaps Tuban Pegunungan, c. 112° E, near the north coast of Java. [Chang Hsieh, p. 122] |
| 94 | 羯 | 餞 | 伽 | <i>Chieh-ling-ch'ieh</i> Kalinga (Orissa), country, c. 20° N, on the east coast of India. [Feng, <i>Hsi-yü</i> , p. 36; Sastri, <i>South India</i> , pp. 213, 465; Sellman, p. 21] |
| 95 | 伽 | 備 | 貌 | <i>Ch'ieh-nan-mao shan</i> (Ch'ieh-nan-mo). Hon Heo, mountain, 12° 24' N, on the coast of central Vietnam. [Chang Hsieh, p. 119] |
| 96 | 怯 | 失 | | <i>Ch'ieh-shih</i> . Jazireh Qais (Kish), island, 26° 31' N, in the Persian Gulf. [Feng, <i>Hsi-yü</i> , p. 45] |

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|-----|---|---|---|---|
| 97 | 建 | 支 | | <i>Chien-chih</i> Kanchi (Conjeeveram), town, 12° 48' N, near the east coast of India. [Feng, <i>Hsi-yü</i> , p. 37] |
| 98 | 柬 | 埔 | 寨 | <i>Chien-pu-chai</i> Cambodia. [Chang Hsieh, p. 120] |
| 99 | 千 | 佛 | 池 | <i>Ch'ien fo ch'ih</i> [Thousand Buddhas stream]. A stream, local name 'Sa hsi ling', on the coast of Baluchistan; perhaps Hor Batt gorge, 25° 20' N, 65° 07' E. [f. 21] |
| 100 | 千 | 里 | 達 | <i>Ch'ien-li-ta</i> (Ch'ien-li-ma). A country; perhaps Tjirebon, 108° 34' E, on the north coast of Java. [<i>Ming shih</i> , p. 7922, row 2] |
| 101 | 千 | 子 | 智 | <i>Ch'ien tzu chih Chiang</i> An anchorage 'facing' Chih-lo-li, Galela, in Halmahera; perhaps Kampung Tilei, 2° 12' N, 120° 14' E, in Morotai island. [Chang Hsieh, p. 124] |
| 102 | 芝 | 蘭 | | <i>Chih-lan</i> Chidambaram (Chilbaram), town, 11° 23' N, on the east coast of India. [f. 19v] |
| 103 | 直 | 羅 | 里 | <i>Chih-lo-li</i> Galela, village, 1° 49' N, on the east coast of Halmahera island in the Moluccas. [Chang Hsieh, p. 124] |
| 104 | 秩 | 達 | | <i>Chih-ta</i> [wrongly, Yang-t'a]. Jidda, town, 21° 29' N, on the west coast of Arabia. [Feng, p. 69] |
| 105 | 赤 | 角 | 山 | <i>Ch'ih chüeh shan</i> [Red Horn mountain]. Mountain on the west coast of Sumatra; perhaps Ulu Palik, 3° 34' S, 102° 20' E. [f. 15v] |
| 106 | 赤 | 坎 | | <i>Ch'ih k'an</i> [Red pit]. Point Ké Ga, 107° 59' E, on the south coast of central Vietnam. [f. 12v] |
| 107 | 赤 | 坎 | | <i>Ch'ih k'an</i> [Red pit]. An island off the east coast of Thailand; perhaps Ko Hluam, 11° 45' N, 99° 50' E. [f. 14] |
| 108 | 池 | 悶 | | <i>Ch'ih-men</i> Timor island in the Eastern Archipelago [Chang Hsieh, p. 122]. See Chi-li Ti-wen. |
| 109 | 赤 | 土 | | <i>Ch'ih t'u</i> [Red earth]. A red tableland about 4 miles north of Anjengo (8° 40' N) on the west coast of India. [Feng, <i>Fei Hsin</i> , ch. 1, p. 31] |
| 110 | 赤 | 土 | 山 | <i>Ch'ih t'u shan</i> [Red Earth mountain]. South cliff, 21° 20' N, on the coast of Burma. [f. 18v] |
| 111 | 進 | 峽 | 門 | <i>Chin hsia men</i> 'The Narrows' in Bangka strait [Chang Hsieh, p. 121]. See Hsia men. |
| 112 | 金 | 嶼 | | <i>Chin hsü</i> [Gold island]. An island off the west coast of Sumatra; perhaps Pini island, 0° 06' N. [f. 16v] |
| 113 | 金 | 嶼 | | <i>Chin hsü</i> [Gold island]. Car Nicobar island, c. 9° 09' N, in the Bay of Bengal. [f. 18v] |
| 114 | 景 | 邁 | | <i>Ching-mai</i> Chiangmai, town, 18° 50' N, 98° 55' E, in Thailand. [Pelliot, 'Itinéraires', p. 244, n. 4] |
| 115 | 青 | 嶼 | | <i>Ch'ing hsü</i> [Black island]. Ile Buffle (Buffalo isle), 14° 08' N, off the east coast of central Vietnam. [f. 12] |

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- 116 清 化 *Ch'ing hua* Thanh Hoa, town, $19^{\circ} 48' N$, on the coast of North Vietnam [Chang Hsieh, p. 119; Herrmann, p. 56]. See Hsi tu.
- 117 清 華 港 *Ch'ing hua chiang* [Anchorage of Ch'ing hua]. Lach Chao (river), mouth in $19^{\circ} 46' N$, in North Vietnam. [Chang Hsieh, p. 119]
- 118 青 撓 嶼 *Ch'ing nao hsü* Poulo Anak Sambo in Singapore strait. [Shih Yung-t'u, f. 51v]. See P'a nao hsü.
- 119 舊 港 *Chiu chiang* [Old haven]. Sungai Musi (Palembang river), mouth in $2^{\circ} 20' S$, on the east coast of Sumatra. [f. 15]
- 120 舊 港 *Chiu chiang* [Old haven]. Palembang town, $3^{\circ} 00' S$, $104^{\circ} 45' E$, near the east coast of Sumatra [f. 15; Chang Hsieh, p. 121]. See San Fo-ch'i.
- 121 九 州 *Chiu chou* [Nine islands]. Sembilan islands, c. $4^{\circ} 01' N$, off the west coast of Malaya. [f. 17]
- 122 九 州 山 *Chiu chou shan* [Nine Island mountains]. Sembilan island, c. $4^{\circ} 09' N$, off the east coast of Sumatra. [Chang Hsieh, p. 122]
- 123 九 嶼 *Chiu hsü* [Nine islands]. Batu islands, c. $1^{\circ} 16' S$, off the west coast of Sumatra. [f. 16]
- 124 九 官 人 *Chiu kuan jen ch'ien* [Nine Officials shoals]. Sandwip island, c. $91^{\circ} 30' E$, off the coast of Bengal. [f. 19]
- 125 淺 遂 奇 馬 *Chu ch'i ma shan* A place near the southern extremity of Zamboanga peninsula on Mindanao island; perhaps Zamboanga, $122^{\circ} 04' E$. [Chang Hsieh, p. 124]
- 126 竹 嶼 *Chu hsü* [Bamboo island]. Petite (Little) Condore, islet, close south-westward of K'un-lun shan, Grand Condore. [f. 13]
- 127 竹 嶼 *Chu hsü* [Bamboo island]. The bank off the mouth of Maenam Phet Buri, $13^{\circ} 12' N$, $99^{\circ} 59' E$, in Thailand; no island now exists. [f. 13v; Chang Hsieh, p. 120]
- 128 竹 嶼 *Chu hsü* [Bamboo island]. Mundu, island, $5^{\circ} 40' S$, off the east coast of Sumatra. [f. 14v]
- 129 竹 嶼 *Chu hsü* [Bamboo island]. An island reached after 5 watches' sailing from Lo wei shan, Poulo Datu; perhaps Masa Tiga islands, $1^{\circ} 01' S$, off the west coast of Borneo. [Huang Sheng-tseng, ch. 1, f. 7]
- 130 竹 里 木 *Chu-li-mu* [Chidor-muc]. Pnom Penh, town, $11^{\circ} 33' N$, $104^{\circ} 55' E$, in Cambodia. [f. 13; Hsiang Ta, *Cheng Ho*, p. 17]
- 131 珠 簾 沙 *Chu-lien sha* [Chola sands]. Pearl banks off the coast of

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- Ceylon; perhaps near Kondachhi, $8^{\circ} 43' N$, $79^{\circ} 57' E$. [Feng, *Fei Hsin*, ch. 1, p. 30]
- 132 猪 蠻 *Chu-man* Tuban, town, $112^{\circ} 04' E$, on the north coast of Java. [Ming shih, p. 7916, row 4; Chang Hsieh, p. 122]
- 133 竹 牌 礁 *Chu p'ai chiao* [Bamboo Tablet rocks]. Island off the coast of Burma; perhaps Green island, $16^{\circ} 04' N$. [f. 18]
- 134 竹 牌 礁 *Chu p'ai chiao* [Bamboo Tablet rocks]. Great Basses ridge, c. $6^{\circ} 09' N$, $81^{\circ} 24' E$, off the south-east coast of Ceylon. [f. 19]
- 135 竹 步 *Chu-pu* Gumbo, village, $0^{\circ} 15' S$, on the east coast of Africa. [Ming shih, p. 7921, row 4]
- 136 猪 未 山 *Chu wei shan* Cape Santiago, $120^{\circ} 39' E$, the south-western extremity of Luzon. [Chang Hsieh, p. 123]
- 137 出 卵 塢 *Ch'u luan wu* [Exposed Testicles shore]. The Nicobar islands [Feng, p. 34]. See Ts'ui lan hsü.
- 138 苧 麻 山 *Ch'u-ma shan* (Ti-p'an shan). Pulau Tioman, island, $2^{\circ} 46' N$, off the east coast of Malaya.
- 139 角 員 *Chüeh yüan* [Corner Round island]. Pulau Bidong Laut, island, $5^{\circ} 36' N$, off the east coast of Malaya. [f. 14v]
- 140 角 圓 山 *Chüeh yüan shan* [Corner Round mountain]. A mountain in eastern Thailand; perhaps Khao Sattahip (hill), $12^{\circ} 41' N$, $100^{\circ} 55' E$. [f. 13]
- 141 重 迦 羅 *Chung chia lo* Mount Tambora, $8^{\circ} 15' S$, $118^{\circ} 00' E$, on Sumbawa island. [Chang Hsieh, p. 122]
- 142 重 迦 羅 *Chung Chia-lo* Ujung Galuh (Jangala), port, c. $7^{\circ} 15' S$, in the delta of the Kali Mas (river) on the east coast of Java. [Feng, *Fei Hsin*, ch. 2, p. 12; Schrieke, pt. II, p. 297]
- 143 衆 不 淺 *Chung pu ch'ien* Hlaem Kolam spit, c. $8^{\circ} 27' N$, $100^{\circ} 11' E$, off Nakhon on the east coast of Thailand. [f. 14]
- 144 中 央 嶼 *Chung yang hsü* An island off the north-west extremity of Sumatra; perhaps Poulo Weh, $95^{\circ} 13' E$. [Huang Sheng-tseng, ch. 2, f. 6v]
- 145 俱 里 都 *Chü-li-tu-li* Srikakulam (Chicacole), town, $18^{\circ} 18' N$, on the east coast of India. [f. 20]
- 146 鱷 魚 嶼 *E yü hsü* [Crocodile island]. Perhaps Durai island, $0^{\circ} 32' N$, $103^{\circ} 36' E$, off the east coast of Sumatra. [Chang Hsieh, p. 121]
- 147 番 荖 里 *Fan-ta-li-na* [Fandarina, Pamdaranj]. Kollam, village, $11^{\circ} 27' N$, on the west coast of India. [f. 20]

- 148 放 拜 *Fang-pai* Perhaps Bombay. [Wang Ta-yüan, f. 27v; Rockhill, Part II, p. 467; Herrmann, p. 54]
- 149 馮 嘉 施 *Feng-chia Shih-lan* Panga Sinan in Luzon. [*Ming shih*, p. 7913, row 4]. See P'ang-chia Shih-lan.
- 150 佛 林 邦 *Fo-lin-pang* Palembang [Hsiang Ta, *Kung Chen*, p. 11]. See San Fo-ch'i.
- 151 佛 囉 安 *Fo-lo-an* [Sri Fo-lai-an]. Phathalung (Badlun), country, c. $7^{\circ} 33' N$, on the east coast of Thailand (being roughly one-third of the distance from Nakhon to Pattani). [Rockhill, Part II, p. 123; Hirth and Rockhill, pp. 68-9; but Wheatley, *Khersonese*, pp. 68-70, preferred [Kuala] Berang in Trengganu.]
- 152 佛 山 *Fo shan* Cape St Jacques, $10^{\circ} 19' N$, $107^{\circ} 05' E$, on the coast of South Vietnam. [f. 13]
- 153 佛 山 *Fo shan* Ko Iang, island, $10^{\circ} 51' N$, $99^{\circ} 28' E$, off the east coast of Thailand. [f. 14]
- 154 佛 逝 *Fo-shih* Vijaya, Cham capital (ruins); also called Chaban [Pelliot, 'Itinéraires', p. 202]. See Chan Ch'eng.
- 155 佛 思 洞 *Fo ssu tung* A place situated between Manikpatna and Kalingapatam on the east coast of India; perhaps Sonnapurampeta town, $19^{\circ} 08' N$. [f. 20]
- 156 佛 堂 *Fo t'ang* [Buddha hall, also Fo she tso, Buddhist Temple dais]. Dondra head, $80^{\circ} 36' E$, on the south coast of Ceylon. [f. 19v]
- 157 佛 堂 *Fo t'ang* [Buddha hall]. Point Pedro, $9^{\circ} 50' E$, on the north coast of Ceylon. [f. 19v]
- 158 浮 甲 山 *Fou-chia shan* Fuga island, c. $18^{\circ} 53' N$, $121^{\circ} 23' E$, off the north coast of Luzon. [Chang Hsieh, p. 123]
- 159 富 良 江 *Fu liang Chiang* Song Ca (Red river), flowing through Thang Long (later Hanoi), mouth in $20^{\circ} 17' N$, on the east coast of North Vietnam. [T'ung Shih-heng, map 15]
- 160 覆 鼎 山 *Fu ting shan* Nui Khong (Nong), mountain, $10^{\circ} 48' N$, $107^{\circ} 45' E$, on the coast of central Vietnam. [f. 13]
- 161 哈 甫 泥 *Ha-fu-ni* Hafun, country, c. $11^{\circ} 50' N$, adjoining Ras Asir (Capo Guardafui) on the east coast of Africa. [f. 20]
- 162 哈 哈 迭 微 *Ha-ha Tieh-wei* [Ka-ka Diwa]. Written north of Fan-ta-li-na (Kollam) on the west coast of India; perhaps Sacrifice rock [f. 20]. See Chia-chia liu.
- 163 海 門 山 *Hai men shan* [Sea Strait mountain]. Ko Samui, island, $9^{\circ} 27' N$, $100^{\circ} 00' E$, off the east coast of Thailand. [f. 14]

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- 164 海 寶 山 *Hai pao shan* [Sea Jewel mountain]. Mui Ron (cape), 18° 07' N, on the east coast of Vietnam. [Chang Hsieh, p. 119]
- 165 海 山 *Hai shan* [Sea Mountain]. A mountain reached after about 5 watches' sailing in direction 330° from Na-pi-tan, Dapitan; perhaps Sharp Peak, 9° 12' N, 122° 58' E, on Negros island in the Philippine islands. [Chang Hsieh, p. 124]
- 166 漢 澤 山 *Han tse shan* Jaldan (Haldan) point, 10° 30' N, on the west coast of Panay island in the Philippine islands. [Chang Hsieh, p. 124]
- 167 鶴 頂 山 *Hao ting shan* A mountain situated about half-way between Point Ké Ga and Cape St Jacques, near the coast of Vietnam; perhaps Nui Bé, 10° 45' N, 107° 37' E. [Chang Hsieh, p. 119]
- 168 黑 兒 *Hei-erh* [Hirr]. Ras el Cheil, cape, 7° 44' N, on the east coast of Africa. [f. 20]
- 169 狠 奴 兒 *Hen-nu-erh* Honavar (formerly Honore, Onore), town, 14° 16' N, on the west coast of India. [Feng, p. 42]
- 170 恒 河 *Heng ho* Ganga (Ganges) river, mouths in about 90° E, in India and East Pakistan. [T'ung Shih-heng, map 15]
- 171 橫 山 *Heng shan* [Transverse mountain]. Dempo, mountain, 4° 01' S, on the west coast of Sumatra. [f. 15 v]
- 172 橫 山 *Heng shan* [Transverse mountain]. Hoanh-son, 17° 59' N, near the east coast of Vietnam [Pelliot, 'Itinéraires', p. 190]. (This range separates North Vietnam from central Vietnam, the pass being known to Europeans as the gate of Annam.)
- 173 合 貓 里 *Ho-mao-li* Camarines province in Luzon, c. 13° 41' N, 123° 15' E. [Chang Hsieh, p. 123; Fairbank and Teng, pp. 225, 229]
- 174 西 港 *Hsi chiang* [Hsi anchorage]. Maenam Sai Buri, estuary, 6° 42' N, on the east coast of Thailand. [f. 14 v]
- 175 西 港 *Hsi chiang* [Western anchorage]. Air Banjuasin, river, mouth in 104° 50' E, on the east coast of Sumatra. [f. 15]
- 176 西 京 *Hsi ching* [Western capital]. Thanh Hoa, in North Vietnam. [Chang Hsieh, p. 119]. See Ch'ing hua.
- 177 西 竹 山 *Hsi chu shan* Pulau Aur, island, 2° 26' N, off the east coast of Malaya [f. 15]. See Tung Chu shan and Tung Hsi chu.
- 178 犀 角 嶼 *Hsi chüeh hsü* [Rhinoceros Horn island]. Sangboy island, 6° 49' N, 121° 32' E, in the Sulu Sea. [Chang Hsieh, p. 124]

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- 179 犀 角 山 *Hsi chüeh shan* [Rhinoceros Horn mountain]. Mountain (or island) on the east coast of Thailand; perhaps Ko Satakut (island), 12° 12' N, 100° 02' E. [f. 13v]
- 180 犀 角 山 *Hsi chüeh shan* [Rhinoceros Horn mountain]. Pematang Langgar, hill, 5° 25' S, on the west coast of Sumatra. [f. 15]
- 181 西 海 *Hsi hai* 'Western sea', the seas west of Amoy. [Chao Ju-kua, ch. 1, p. 76]. See Addendum 1, The Oceans, p. 227.
- 182 錫 蘭 *Hsi-lan* Ceylon [Hsiang Ta, *Kung Chen*, p. 22]. See Hsi-lan shan.
- 183 細 蘭 海 *Hsi-lan hai* 'The sea of Ceylon', in the Bay of Bengal. [Hirth and Rockhill, p. 26; *Ming shih*, p. 7919, row 3]
- 184 錫 蘭 山 *Hsi-lan shan* (a) The island of Ceylon [f. 19v]. (b) Adam's Peak. [Hirth and Rockhill, p. 75, n. 8, from p. 74]
- 185 西 南 海 *Hsi nan hai* 'South-western sea' [Groeneveldt, p. 229]. The seas west of Amoy. See Addendum 1, The Oceans, p. 227.
- 186 西 東 災 *Hsi shu tsai mo hsü* Daimaniyat islands [Shih Yung-t'u, f. 58]. See Ya shu tsai chi hsü.
- 187 西 天 *Hsi t'ien*. 'Western heaven', a generic term for 'The West', specifically including Tibet, Nepal, and India. [Bretschneider, vol. 1, p. 244; vol. 11, pp. 221-2]
- 188 西 天 竺 *Hsi T'ien chu* Western India. [Chao Ju-kua, ch. 1, p. 35]
- 189 西 都 *Hsi tu* [Western capital; Annamite, Tay-do]. Thanh Hoa, town, in North Vietnam [Chang Hsieh, p. 119; Herrmann, p. 56]. See Ch'ing hua.
- 190 西 董 *Hsi tung* Great Catwick, island, 10° 03' N, 108° 53' E, 62 miles off the coast of central Vietnam [f. 12v]. See Tung tung.
- 191 西 洋 *Hsi yang* 'Western Ocean' [Feng, p. 42]. (a) A generic name for 'The West'. [Pao Tsen-peng, pp. 32-3]. (b) The seas west of Amoy. See Addendum 1, The Oceans, p. 227.
- 192 西 洋 瑣 里 *Hsi yang So-li* [So-li in the Western Ocean]. A country on the east coast of India; perhaps the Cauverypatam district, c. 11° 09' N. [*Ming shih*, p. 7919, row 1]
- 193 西 印 度 *Hsi Yin-tu* Western India. [Feng, *Fei Hsin*, ch. 1, p. 9]
- 194 西 域 *Hsi yü* 'Western region', a generic name for 'The West', specifically including Arabia, Egypt, Syria, and

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- the Byzantine empire. [Bretschneider, vol. II, pp. 135-6, 176, 224-5; Duyvendak, 'Dates', p. 354; Hsiang Ta, *Kung Chen*, p. 53]
- 195 下 港 *Hsia chiang* [Lower anchorage]. Banten in Java [Chang Hsieh, p. 121; T'ung Shih-heng, map 15]. See Shun-t'a.
- 196 夏 刺 比 *Hsia-la-pi* Valabhi, country, c. 22° N, 72° E, in the Gujarat region of India. [*Ming shih*, p. 7922, row 2; Watters, vol. II, pp. 246, 341]
- 197 下 里 *Hsia-li* Mount Dely. [Feng, *Fei Hsin*, ch. 1, p. 31]. See Hsieh-li.
- 198 狹 門 *Hsia men* [Narrow strait]. 'The Narrows' in Bangka strait, between Tandjung Tapa (2° 41' S, 105° 47' E) and Tandjung Berani. [f. 14v]
- 199 象 坎 *Hsiang k'an* [Elephant pit]. An island off the coast of Cambodia; perhaps Phu Quoc (Koh Tron), 10° 22' N, 104° 02' E. [f. 13]
- 200 小 長 沙 *Hsiao Ch'ang sha hai k'ou* [Little Long Sands sea mouth]. Hué river mouth, 16° 34' N, on the coast of central Vietnam. [Chang Hsieh, p. 119]
- 201 小 咀 喃 *Hsiao Chü-nan* Quilon [Feng, *Fei Hsin*, ch. 1, p. 31]. See Hsiao Ko-lan.
- 202 小 橫 山 *Hsiao Heng shan* Poulo Wai, island, 9° 55' N, 102° 51' E, 57 miles off the coast of Cambodia. [f. 13]
- 203 小 葛 蘭 *Hsiao Ko-lan* [Little Ko-lan]. Quilon, town, 8° 53' N, on the west coast of India. [f. 19v]
- 204 小 崑 崙 *Hsiao K'un-lun* Les Frères (The Brothers), islets, 8° 35' N, 106° 07' E, c. 24 miles west of K'un-lun Shan, Grand Condore. [f. 13]
- 205 小 帽 山 *Hsiao Mao shan* [for Ch'ieh-nan-mao shan]. Poulo Weh [Feng, p. 50; Huang Sheng-tseng, ch. 2, f. 7]. See Mao shan.
- 206 小 莫 山 *Hsiao Mo shan* A mountain near the coast of Burma; perhaps Ramree island, c. 19° 06' N. [f. 18v]
- 207 小 士 蘭 *Hsiao Shih lan* An island in the Gulf of Thailand; perhaps Koh Kut, 11° 37' N, 102° 33' E [f. 13]. See Ta shih lan.
- 208 小 東 洋 *Hsiao Tung yang* [Little Eastern ocean]. The sea-area between the Pescadores islands and Formosa. [Chang Hsieh, p. 124]
- 209 小 灣 *Hsiao wan* [Little bay]. A bay to the north of Cape Varella, on the east coast of central Vietnam; perhaps Baie de Vung Chua, c. 13° 26' N. [f. 12v]

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- 210 小 山 *Hsiao Yen shan* A mountain in Palawan island; perhaps The Four Peaks, c. $10^{\circ} 11' N$, $119^{\circ} 02' E$. [Chang Hsieh, p. 124]
- 211 歇 立 *Hsieh-li* [Hili]. Mount Delly, $12^{\circ} 02' N$, on the west coast of India. [f. 20]
- 212 暹 羅 國 *Hsien lo kuo* [The country of Hsien and Lo]. Thailand. [f. 13v]
- 213 新 洲 港 *Hsin chou chiang* [New Islet anchorage]. Qui Nhon, port, $13^{\circ} 46' N$, on the east coast of central Vietnam. [f. 12]
- 214 辛 刺 高
岸 *Hsin-la-kao-an* Sonargaon, town, c. $23^{\circ} 43' N$, $90^{\circ} 38' E$, about 12 miles east of Dacca in East Pakistan. [f. 20]
- 215 新 門 臺 *Hsin men t'ai* [New Gate tower]. At the mouth of Maenam Mae Klong, $13^{\circ} 21' N$, in the Gulf of Thailand. [Feng, p. 19; Huang Sheng-tseng, ch. 2, f. 1v]
- 216 新 得 *Hsin-te* Sindi in West Pakistan [f. 21]. See Tieh-yü-li.
- 217 新 村 *Hsin ts'un* [New village]. Gresik in Java, [Feng, p. 9]. See Chi-li-shih.
- 218 辛 都 *Hsin-tu* [Sindhu]. (a) India. (b) Indus river, mouths in about $24^{\circ} N$, on the coast of West Pakistan. [Feng, *Hsi-yü*, p. 65]
- 219 須 多 *Hsü to* Socotra island [f. 20v]. See Su-ku-ta-la.
- 220 須 文 達 *Hsü-wen-ta-na* [Semudera]. Lho Seumawe region [Chang Hsieh, p. 122]. See Su-men-ta-la Kuo.
- 221 雪 山 *Hsüeh shan* [Snow mountains]. Himalaya mountains in northern India. [Feng, *Hsi-yü*, p. 32]
- 222 胡 椒 山 *Hu chiao shan* [Pepper mountain]. Murjo Pegunungan, $6^{\circ} 35' S$, $110^{\circ} 52' E$, near the north coast of Java [Huang Sheng-tseng, ch. 1, f. 7]. See Pao-lao-an shan.
- 223 忽 魯 謨
斯 *Hu-lu-mo-ssu* Jazireh Hormuz, island, c. $27^{\circ} 03' N$, $56^{\circ} 27' E$, near the entrance to the Persian Gulf. [f. 22]
- 224 虎 尾 礁 *Hu wei chiao* Rusa, island, $5^{\circ} 17' N$, off the west coast of Sumatra. [f. 18]
- 225 花 面 國 *Hua mien kuo* [Country of the Tattooed Faces]. Peudada district in northern Sumatra [Feng, *Fei Hsin*, ch. 1, p. 24]. See Na-ku-erh.
- 226 紅 豆 嶼 *Hung tou hsü* [Red Bean island]. Dalupiri island, c. $19^{\circ} 50' N$, $121^{\circ} 14' E$, off the north coast of Luzon. [Chang Hsieh, p. 123]
- 227 火 山 *Huo shan* [Fire mountain]. Sangeang island, c. $119^{\circ} 04' E$, off the north coast of Sumbawa. [Chang Hsieh, p. 122]

Appendix 1

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| 228 | 火 山 門 | <i>Huo shan men</i> Sangeang strait, between Tandjung Naru on Sumbawa island and Huo shan, Sangeang island. [Chang Hsieh, p. 122] |
| 229 | 又 安 | <i>I an</i> Nghe-an, district, c. $15^{\circ} 53' N$, on the east coast of central Vietnam. [Chang Hsieh, p. 119; T'ung Shih-heng, map 16] |
| 230 | 翼 城 | <i>I ch'eng</i> [error for Chia-i ch'eng]. Old Kayal [f. 19v]. See Chia-i-lo. |
| 231 | 以 寧 港 | <i>I-ning chiang</i> Ilin strait, c. $12^{\circ} 15' N$, between Wu-wen-lou, Mindoro island, and I-ning, Ilin island, in the Philippine islands. [Chang Hsieh, p. 123] |
| 232 | 伊 賞 那
補 羅 | <i>I-shang-na-pu-lo</i> [Isanapura]. Angkor, $13^{\circ} 20' N$, $103^{\circ} 51' E$, capital of Cambodia [Feng, <i>Hsi-yü</i> , p. 34]. (Isanapura is the old name; the editor has not found the Chinese characters for the later capital 'Yasodhara-pura'; the <i>Ming shih</i> and Li Hsien call the capital <i>tu</i> , 'the metropolis'.) |
| 233 | 饒 洞 | <i>Jao-tung</i> Jaratan (Jortan, Yortan), town, close southward of Chi-li-shih, Gresik, in Java. [Chang Hsieh, p. 122; Schrieke, pt. I, p. 246, n. 85; Schrieke, pt. II, map.] |
| 234 | 任 尋 港 | <i>Jen hsiün chiang</i> Estuary of Saigon river, c. $10^{\circ} 25' N$, $107^{\circ} 00' E$, on the coast of Vietnam. [Chang Hsieh, p. 119] |
| 235 | 仁 義 礁 | <i>Jen i chiao</i> Kundur island, c. $0^{\circ} 45' N$, off the east coast of Sumatra. [f. 15v] |
| 236 | 任 不 知
溜 | <i>Jen-pu-chih liu</i> [Gubati]. Fadiffolu atoll, c. $5^{\circ} 24' N$, in the Maldive islands. [f. 19v] |
| 237 | 日 羅 夏
治 | <i>Jih-lo-hsia-chih</i> Gresik, in Java [<i>Ming shih</i> , p. 7916, row 4]. See Chi-li-shih. |
| 238 | 甘 巴 港 | <i>Kan-pa chiang</i> Sungai Kampar, river, mouth in $0^{\circ} 27' N$, on the east coast of Sumatra. [f. 15v] |
| 239 | 甘 巴 里 | <i>Kan-pa-li</i> Coimbatore [<i>Ming shih</i> , p. 7922, row 1]. See K'an-pa-i-t'i. |
| 240 | 甘 巴 里
頭 | <i>Kan-pa-li i'ou</i> . Cape Comorin, $77^{\circ} 33' E$, most southerly point of India. [f. 19v] |
| 241 | 甘 巴 門 | <i>Kan-pa men</i> The channel between the east coast of Sumatra and Onggut island, $0^{\circ} 38' N$. [f. 15v] |
| 242 | 甘 杯 港 | <i>Kan-pei chiang</i> [Kumpai anchorage]. Kumpai roadstead, $4^{\circ} 11' N$, on the east coast of Sumatra. [f. 17] |
| 243 | 甘 比 利 | <i>Kan-pi-li</i> Kampili, country, c. $15^{\circ} 37' N$, $76^{\circ} 45' E$, in central India. [Feng, <i>Hsi-yü</i> , p. 37; Smith, p. 292; Sastri, <i>South India</i> , p. 255] |

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- 244 甘 孛 智 *Kan-po-chih* (Kan-p'o-che). Cambodia [Chang Hsieh, p. 120]. See Chien-pu-chai.
- 245 坎 巴 夷
替 *K'an-pa-i-t'i* (K'an-pa-i). Coimbatore, town, 11° 02' N, 76° 59' E, in southern India. [Feng, p. 42; Huang Sheng-tseng, ch. 3, f. 3v; Pelliot, 'Voyages', p. 290, n. 1]
- 246 坎 八 葉 *K'an-pa-yeh* [Kanbayat]. Cambay, town, 22° 19' N, on the west coast of India. [f. 21]
- 247 高 郎 阜 *Kao-lang-fou* [wrongly, Kao-chi-wu]. Colombo, town, 6° 56' N, on the west coast of Ceylon. [f. 19v; Feng, *Fei Hsin*, ch. 2, p. 16]
- 248 高 螺 *Kao lo* A name of Chung chia lo, Mount Tambora on Sumbawa island. [Chang Hsieh, p. 122]
- 249 高 藥 港 *Kao-yao Chiang* Anchorage of Cuyo, 10° 51' N, 121° 01' E, on Cuyo island between Palawan and Panay in the Philippine islands. [Chang Hsieh, p. 124]
- 250 柯 枝 *Ko-chih* Cochin, country, c. 9° 58' N, on the west coast of India. [f. 20]
- 251 革 兒 昔 *Ko-erh-hsi* Gresik, in Java [Feng, p. 9]. See Chi-li-shih.
- 252 葛 兒 得
風 *Ko-erh-te-feng* [Gardafun]. Ras Asir (Capo Guardafui), 11° 50' N, on the east coast of Africa. [f. 19v]
- 253 柯 任 山 *Ko jen shan* Cape St Jacques, 10° 19' N, 107° 05' E, on the coast of Vietnam. [Chang Hsieh, pp. 119-20]
- 254 箇 沒 盧 *Ko-mo-lu* [Kamarupa]. Assam, country, c. 26° N, 91° E, in northern India. [Feng, *Hsi-yü*, p. 37]
- 255 葛 那 及 *Ko-na-chi* Kanauj, country, c. 27° 04' N, 79° 56' E, in northern India. [Feng, *Hsi-yü*, p. 37]
- 256 葛 荅 幹 *Ko-ta-kan* Quitangonha (Jamali) island, 14° 51' S, on the east coast of Africa. [f. 19v]
- 257 客 實 *K'o-shih* Kej (Kech) district, c. 63° E, in Baluchistan [f. 21v]. The name often appears in a combined form such as Marco Polo's 'Kech-Makran'.
- 258 克 失 迷
兒 *K'o-shih-mi-erh* Kashmir, country, c. 34° N, 77° E, in the north of India. [Feng, *Hsi-yü*, p. 41]
- 259 克 迭 迷
兒 *K'o-tieh-mi* [Cosmi]. Hainggyi Kyun, island, 94° 19' E, off the coast of Burma. [f. 18]
- 260 克 瓦 荅
兒 *K'o-wa-ta-erh* Gwadar, town, 62° 19' E, on the coast of Baluchistan. [f. 21]
- 261 克 瓦 荅
兒 *K'o-wa-ta-erh* Gwatar, village, 61° 30' E, on the coast of Persian Makran. [f. 21v]
- 262 勾 欄 山 *Kou-lan shan* Gelam islet [Huang Sheng-tseng, ch. 1, f. 7]. See Chiao-lan shan.

Appendix 1

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| 263 | 古 | 蘭 | 丹 | <i>Ku-lan-tan chiang</i> Sungei Kelantan estuary, 6° 11' N [f. 14v]. See Chi-lan-tan. |
| 264 | 古 | 里 | | <i>Ku-li</i> Calicut, country, c. 11° 15' N, on the west coast of India. [f. 20] |
| 265 | 古 | 里 | 班 | <i>Ku-li Pan-tsu</i> Barus [<i>Ming shih</i> , p. 7922, row 2; Pelliot, 'Voyages', p. 331, n. 5]. See Pan-tsu. |
| 266 | 古 | 里 | 牙 | <i>Ku-li-ya</i> Quraiyat, village, 23° 16' N, on the east coast of Arabia. [f. 21v] |
| 267 | 古 | 里 | 由 | <i>Ku-li-yu Pu-tung</i> Pulau Butang, island, 6° 32' N, off the west coast of Malaya. [f. 17] |
| 268 | 古 | 不 | 刺 | <i>Ku-ma-la-lang</i> Perhaps Cabarruyan island, c. 16° 18' N, 119° 58' E, in the Philippine islands. [<i>Ming shih</i> , p. 7913, row 4] |
| 269 | 骨 | 八 | 丹 | <i>Ku-pa-tan</i> Manikpatna, town, 19° 43' N, on the east coast of India. [f. 20] |
| 270 | 窟 | 察 | 泥 | <i>K'u-ch'a-ni</i> Kutch, country, c. 23° N, 70° E, on the west coast of India. [<i>Ming shih</i> , p. 7922, row 2] |
| 271 | 苦 | 碌 | 麻 | <i>K'u-lu-ma-la</i> A place near the north-east corner of the Persian Gulf; perhaps Minab, town, 27° 09' N, 57° 05' E. [f. 22] |
| 272 | 苦 | 思 | 荅 | <i>K'u-ssu-ta-erh</i> Kuhistak, town, 57° 01' E, on the coast of Baluchistan. [f. 21v] |
| 273 | 瓜 | 哇 | | <i>Kua-wa</i> [error for Chao-wa] Java. [<i>Ming shih</i> , p. 7916, row 2] |
| 274 | 官 | 廠 | | <i>Kuan ch'ang</i> [Official building]. Office at Malacca [f. 16]. See Man-la-chia. |
| 275 | 官 | 廠 | | <i>Kuan ch'ang</i> [Official building]. Office at 'Semudera', in northern Sumatra [f. 17v]. See Su-men-ta-la. |
| 276 | 官 | 嶼 | | <i>Kuan hsü</i> [Official island]. Pulau Tembakul, island, 1° 13' N, 103° 51' E, in Singapore strait. [f. 15] |
| 277 | 官 | 嶼 | | <i>Kuan hsü</i> [Official island]. Berhala island, 0° 52' S, 104° 24' E, off the east coast of Sumatra. [f. 15v] |
| 278 | 官 | 嶼 | | <i>Kuan hsü</i> [Official island]. Male or Sultan's island, 4° 10' N, in the Maldive islands. [f. 19v] |
| 279 | 棺 | 墓 | 山 | <i>Kuan mu shan</i> Núi Dau Goc Let, mountain, 13° 50' N, on the east coast of central Vietnam. [f. 12] |
| 280 | 觀 | 廷 | 嶼 | <i>Kuan yen hsü</i> An island off the north-western extremity of Sumatra; perhaps Poulo Rondo, 95° 07' E. [Huang Sheng-tseng, ch. 2, f. 6v] |
| 281 | 廣 | 南 | | <i>Kuang nan</i> Quang-nam, town, 15° 53' N, on the east coast of Vietnam. [Chang Hsieh, p. 119; Le Thanh Khoi, map 11] |

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- 282 廣 南 港 *Kuang nan Chiang k'ou* [Kuang Nan anchorage mouth]. Fai Fo estuary, $15^{\circ} 53' N$, on the east coast of Vietnam. [Chang Hsieh, p. 119]
- 283 鬼 嶼 *Kuei hsü* [Devil island]. Gezusters, islets, c. $5^{\circ} 45' S$, off the east coast of Sumatra. [f. 14v]
- 284 鬼 嶼 *Kuei hsü* [Devil island]. Rangsang island, c. $1^{\circ} 00' N$, off the east coast of Sumatra. [f. 16]
- 285 龜 嶼 *Kuei hsü* [Tortoise island]. Tandjung Kait (Lucipara punt), cape, $3^{\circ} 13' S$, on the east coast of Sumatra [f. 14v]. The Tree island of British Admiralty Chart 1263.
- 286 龜 嶼 *Kuei hsü* [Tortoise island]. Fahl islet, $23^{\circ} 41' N$, off the east coast of Arabia. [f. 21v]
- 287 龜 嶼 *Kuei hsü* [Tortoise island]. Banang island, $113^{\circ} 23' E$, off the south coast of Borneo. [Chang Hsieh, p. 123]
- 288 圭 龍 嶼 *Kuei lung hsü* [Token Dragon island]. An island, or hill, north of Lo wan t'ou, Cape Padaran; perhaps Mui Da-Vaich, $11^{\circ} 43' N$, on the coast of central Vietnam. [Chang Hsieh, p. 119]
- 289 圭 頭 淺 *Kuei t'ou ch'ien* [Token Head shoals]. Shoals off Hlaem Phak Bia, $13^{\circ} 02' N$, on the east coast of Thailand. [Chang Hsieh, p. 120]
- 290 龜 頭 山 *Kuei t'ou shan* [Tortoise Head mountain]. Elephant point, $21^{\circ} 12' N$, on the coast of Burma. [f. 18v]
- 291 昆 下 池 *K'un hsia ch'ih Chiang* [The anchorage of the lower stream of [Liu-] k'un, Nakhon]. Ao Pattani (bay), c. $6^{\circ} 54' N$, $101^{\circ} 18' E$, on the east coast of Thailand. [f. 14v]
- 292 崑 崙 山 *K'un-lun shan* Grand Condore, island, $8^{\circ} 41' N$, $106^{\circ} 36' E$, 47 miles off the coast of South Vietnam [f. 13]
- 293 崑 崙 山 *K'un-lun shan* Pulau Tega, island, $5^{\circ} 42' N$, off the west coast of Borneo. [Chang Hsieh, p. 124]
- 294 崑 崙 洋 *K'un-lun yang* [K'un-lun ocean]. The sea-area south of Grand Condore. [Huang Sheng-tseng, ch. 1, f. 4v]
- 295 昆 宋 *K'un-sung* [error for P'i-sung]. Pulau Pisang, off the west coast of Malaya. [Chang Hsieh, p. 121]
- 296 供 迎 擎 *Kung chia-na* Konkan, country, c. $18^{\circ} N$, on the west coast of India. [Feng, *Hsi-yü*, p. 46; Smith, p. 383; Sellman, p. 47]
- 297 恭 御 陀 *Kung-yü-t'o* [Kongoda]. Ganjam, town, $19^{\circ} 23' N$, on the east coast of India. [Feng, *Hsi-yü*, p. 46]
- 298 刺 兒 可 *La-erh-k'o-shu* Jazireh Larak, island, c. $26^{\circ} 51' N$, $56^{\circ} 21' E$, near the entrance to the Persian Gulf. [f. 22]

Appendix 1

- 299 刺 泥 *La-ni* [Lar]. Central Gujarat region of western India [*Ming shih*, p. 7922, row 2; Watters, vol. II, p. 253; Kuwabara, no. VII, p. 86]. ('Beyond' *La-ni* were the ten countries called *Hsia-la-pi*, *Ch'i-la-ni*, *K'u-ch'a-ni*, *She-la-ch'i*, *P'eng-chia-na*, *Pa-k'o-i*, *Wu-sha-la-t'i*, *K'an-pa*, *A-wa*, and *Ta-hui*.)
- 300 刺 撒 *La-sa* *La'sa* (name obsolete), village, c. 49° 04' E, near Mukalla, on the south coast of Arabia. [f. 20v]
- 301 刺 思 那
呵 *La-ssu Na-ho* A place between Ras el Cheil (7° 44' N) and Mogadishu (2° 02' N), on the east coast of Africa; perhaps Ras Assuad, 4° 33' N. [f. 20]
- 302 攪 邦 港 *Lan-pang Chiang* Lampung bay, c. 5° 40' S, in Sunda strait. [f. 14v; Chang Hsieh, p. 121]
- 303 瀾 滄 江 *Lan ts'ang Chiang* Mekong river in Indo-China. [Pelliot, 'Itinéraires', p. 370, n. 3; T'ung Shih-heng, map 14.]
- 304 狼 西 加 *Lang-hsi-chia* [Langkasuka (name obsolete); wrongly, Lung-ya-chia-mao]. The district to the east and north-east of Pattani, c. 101° 18' E, on the east coast of Thailand. [f. 14v]
- 305 郎 梅 嶼 *Lang-mei Hsü* An island, or hill, reached after 4 watches' sailing northward from Ma-li-lao Hsü, Santiago island, on the west coast of Luzon; perhaps Darigayos point, 16° 50' N. [Chang Hsieh, p. 123]
- 306 郎 木 山 *Lang-mu shan* Lombok island, c. 8° 30' S, 116° 25' E, in the Eastern Archipelago. [Chang Hsieh, p. 122]
- 307 老 撾 *Lao chua* Country (later called Nan chang, Lan chang), c. 19° N, 102° 30' E, in the north of Laos. [Herrmann, p. 55; T'ung Shih-heng, map 16; Fairbank and Teng, p. 228]
- 308 禮 金 務 *Li-chin-wu* Negombo, town, 7° 12' N, on the west coast of Ceylon. [f. 19v]
- 309 里 馬 山 *Li-ma shan* The peaks of Huo shan, Sangeang island, c. 8° 12' S, 119° 05' E, in the Eastern Archipelago [Chang Hsieh, p. 122]. See Chen Li-ma and Chia Li-ma.
- 310 里 擺 翰 *Li-pai-han* Quiniluban island, 11° 26' N, 120° 50' E, between Palawan and Panay, in the Philippine islands. [Chang Hsieh, p. 124]
- 311 麗 水 *Li shui* Irrawaddy river in Burma. [Pelliot, 'Itinéraires', pp. 170, 371. Li Shui was the ninth-century name and possibly was obsolete in 1433.]
- 312 黎 代 *Li-tai* Meureudu district, c. 96° 15' E, on the north coast of Sumatra. [Feng, p. 31]

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- 313 犁 頭 山 *Li t'ou shan* [Plough-share mountain]. An island or hill situated about 25 miles north of Khao Samroi-yot on the east coast of Thailand; perhaps Khao Takiap headland, $12^{\circ} 30' N$. [Chang Hsieh, p. 120]
- 314 里 銀 中 *Li yin chung pang* Hermana Mayor island, *c.* $15^{\circ} 48' N$, off the west coast of Luzon. [Chang Hsieh, p. 123]
- 315 鯉 魚 塘 *Li yü t'ang* [Carp Fish embankment]. Tandjung Pelompong, promontory, $5^{\circ} 02' N$, the north-western entrance-point of Sungei Brunei, on the west coast of Borneo. [Chang Hsieh, p. 124]
- 316 涼 傘 礁 *Liang san chiao* [Parasol rock]. Dapoer islets, $3^{\circ} 07' S$, $106^{\circ} 30' E$, in Bangka strait. [f. 14v]
- 317 涼 傘 嶼 *Liang san hsü* (*Liang san chiao*) ['Parasol island']. Poulo Labon, island, $1^{\circ} 05' N$, $103^{\circ} 46' E$, on the south side of Singapore strait. [f. 15v]
- 318 涼 傘 嶼 *Liang san hsü* [Parasol island]. Nias, island, $1^{\circ} 00' N$, off the west coast of Sumatra. [f. 17]
- 319 諒 山 *Liang shan* Lang-son, village, $21^{\circ} 57' N$, $106^{\circ} 57' E$, in North Vietnam. [Herrmann, p. 62; Le Thanh Khoi, maps 10 and 11]
- 320 靈 山 *Ling shan* [Holy mountain]. Cape Varella, $12^{\circ} 54' N$, on the east coast of central Vietnam. [f. 12v]
- 321 硫 黃 嶼 *Liu huang hsü* [Sulphur mountain]. Rakata (Krakatau) island, $6^{\circ} 09' S$, in Sunda strait. [f. 14v]
- 322 六 坤 *Liu-k'un* Nakhon, country, *c.* $8^{\circ} 27' N$, on the east coast of Thailand. [Chang Hsieh, p. 120]
- 323 六 貌 山 *Liu miao shan* [Six small mountains]. Hills situated about half-way between Cape Bojeador and Santiago island on the west coast of Luzon; perhaps the range of hills between Candon point, $17^{\circ} 12' N$, and San Esteban point. [Chang Hsieh, p. 123]
- 324 溜 山 國 *Liu shan kuo* [Diu Mountains country; also called Liu yang kuo, Diu Ocean country]. The Maldivé and Laccadive islands. [*Ming shih*, p. 7922, row 1]
- 325 羅 法 *Lo-fa* Luhaiya, town, $15^{\circ} 42' E$, on the west coast of Arabia. [f. 20v]
- 326 羅 甸 山 *Lo fu shan* Balabac island, *c.* $8^{\circ} 00' N$, $117^{\circ} 02' E$, off the southern extremity of Palawan island. [Chang Hsieh, p. 124]
- 327 羅 漢 嶼 *Lo han hsü* Hon Lon, island, $12^{\circ} 12' N$, off the east coast of central Vietnam. [f. 12v]
- 328 羅 漢 嶼 *Lo han hsü* Lima islands, $104^{\circ} 17' E$, at the eastern end of Singapore strait. [Chang Hsieh, p. 120]

Appendix 1

- 329 落 嶼 *Lo hsü* Llo-Llo islet, $10^{\circ} 12' N$, $106^{\circ} 47' E$, off the coast of Vietnam. [Chang Hsieh, p. 120]
- 330 羅 斛 *Lo-hu* Lavo (Lvo), country, region of Lopburi, c. $14^{\circ} 48' N$, $100^{\circ} 36' E$, in Thailand. [*Ming shih*, p. 7915, row 3; Pelliot, 'Itinéraires', p. 253]
- 331 落 坑 *Lo-k'eng* Arakan, town, $20^{\circ} 33' N$, $93^{\circ} 03' E$, in Burma. [f. 18v]
- 332 落 坑 山 *Lo-k'eng shan* Myengun Kyun, island, c. $19^{\circ} 54' N$, off the coast of Burma. [f. 18v]
- 333 羅 灣 頭 *Lo wan t'ou* Cape Padaran, $11^{\circ} 22' N$, $109^{\circ} 01' E$, on the east coast of central Vietnam. [f. 12v]
- 334 羅 幃 山 *Lo wei shan* Poulo Datu, island, $0^{\circ} 07' N$, $108^{\circ} 01' E$, off the west coast of Borneo. [Huang Sheng-tseng, ch. 1, f. 7]
- 335 祿 兀 *Lu-wu* Lovek, town (ruins near Udon), c. $11^{\circ} 52' N$, $104^{\circ} 45' E$, in Cambodia. [Chao Ju-kua, p. 7; Pelliot, 'Itinéraires', p. 237; Herrmann, p. 55; Le Thanh Khoi, maps 13, 15]
- 336 龍 涎 嶼 *Lung hsien hsü* [Dragon-spittle island]. Poulo Rondo, island, $6^{\circ} 04' N$, $95^{\circ} 07' E$, off the north coast of Sumatra. [f. 18v]
- 337 龍 山 *Lung shan* [Dragon mountain]. A mountain in Borneo [Feng, *Fei Hsin*, ch. 2, p. 14]. Perhaps Mount Kina Balu [Rockhill, Part II, p. 265, n. 1 from p. 264]. See Sheng shan.
- 338 龍 牙 加 *Lung-ya-chia-erh Chiang* Tapanuli bay, $1^{\circ} 38' N$, on the west coast of Sumatra. [f. 16v]
- 339 龍 兒 牙 加 *Lung-ya-chia-erh shan* Tombak Rantjang, mountain, $1^{\circ} 42' N$, $98^{\circ} 48' E$, on the west coast of Sumatra. [f. 16v]
- 340 龍 兒 牙 交 *Lung-ya-chiao-i* [wrongly, *Lung-ya-shan-t'i*]. Pulau Langkawi, island, $6^{\circ} 24' N$, off the west coast of Malaya. [f. 17]
- 341 龍 牙 犀 *Lung-ya-hsi-chüeh* [wrongly, *Lung-ya-chia-mao*]. 'Langkasuka' [Feng, *Fei Hsin*, ch. 1, p. 25]. See Lang-hsi-chia.
- 342 龍 牙 葛 *Lung-ya-ko* A place between Kalingapatam and Sriakulam on the east coast of India; perhaps the Langulya river, mouth in $18^{\circ} 13' N$. [f. 20]
- 343 龍 牙 門 *Lung ya men* [Dragon Tooth strait]. The strait south of Pulau Saturnu (Coney islet, Raffles Lighthouse), $1^{\circ} 09' N$, $103^{\circ} 44' E$, in Singapore strait. [f. 15]
- 344 龍 山 雅 大 *Lung-ya ta shan* [Lingga Great mountain]. Gunung Daik (Lingga Peak), $0^{\circ} 11' S$, $104^{\circ} 33' E$, in Lingga

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- island off the east coast of Sumatra. [Chang Hsieh, p. 121]
- 345 龍 隱 大 *Lung yin ta shan* Mount Ilin, $12^{\circ} 16' N$, on I-ning, Ilin island, off Wen-wu-lou, Mindoro island, in the Philippine islands. [Chang Hsieh, p. 123]
- 346 呂 蓬 *Lü-p'eng* Lubang island, c. $13^{\circ} 47' N$, $120^{\circ} 11' E$, in the Philippine islands. [Chang Hsieh, p. 124]
- 347 呂 宋 *Lü-sung* Luzon, country, c. $14^{\circ} 23' N$, on the west coast of Luzon island. [Chang Hsieh, p. 123]
- 348 馬 鞍 嶼 *Ma an hsü* An island reached after 5 watches' sailing in direction $217\frac{1}{2}^{\circ}$ from Shih li ta shan (q.v.); perhaps Midai island, $3^{\circ} 00' N$, $107^{\circ} 47' E$, off the west coast of Borneo. [Chang Hsieh, p. 122]
- 349 馬 鞍 山 *Ma an shan* Ko tao, island, $10^{\circ} 06' N$, $99^{\circ} 51' E$, off the east coast of Thailand. [f. 14]
- 350 馬 鞍 山 *Ma an shan* Verlaten island, $6^{\circ} 05' S$, in Sunda strait. [f. 14v]
- 351 馬 鞍 山 *Ma an shan* Bintan Great hill, $1^{\circ} 04' N$, $104^{\circ} 27' E$, on the south side of Singapore strait. [f. 15v]
- 352 馬 船 礁 *Ma ch'uan chiao* [Horse Ship rock]. Diamond island, $94^{\circ} 15' E$, off the coast of Burma. [f. 18]
- 353 馬 哈 音 *Ma-ha-yin* Mahim, town, $19^{\circ} 37' N$, on the west coast of India. [f. 20v]
- 354 麻 刺 哇 *Ma-la-wa hsü* Kebatu islet, $3^{\circ} 48' S$, $108^{\circ} 04' E$, south of Belitung island. [f. 14v]
- 355 麻 里 溪 *Ma-li-ch'i liu* Minicoy island, $8^{\circ} 16' N$, one of the Laccadive islands. [f. 19v]
- 356 麻 里 老 *Ma-li-lao hsü* [Bolinao island]. Santiago island, c. $16^{\circ} 23' N$, on the west coast of Luzon. [Chang Hsieh, p. 123]
- 357 麻 離 拔 *Ma-li-pa* (Ma-lo-pa) Mirbat, town, $54^{\circ} 41' E$, on the south coast of Arabia. [Hirth and Rockhill, p. 119, n. 2]
- 358 麻 里 東 *Ma-li-tung* [reading tung for shu; also, Ma-i-tung, and Ma-yeh-weng]. Belitung (Billiton) island, c. $2^{\circ} 52' S$, east of Bangka. [f. 14v]
- 359 麻 林 *Ma-lin*. Malindi, town, $3^{\circ} 13' S$, on the east coast of Africa. [Ming shih, p. 7921, row 4; Pelliot, 'Voyages', p. 298]
- 360 麻 林 地 *Ma-lin-ti* [Malindi]. Written south of Ko-ta-kan, Quitangonha island, $14^{\circ} 51' S$, on the east coast of Africa; perhaps Mozambique, $15^{\circ} 03' S$. [f. 19v]
- 361 馬 陵 橋 *Ma ling ch'iao* An island, about half-way between

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- Culao Ré and Mui Ong Can, off the east coast of central Vietnam; perhaps Nuoc isle, $14^{\circ} 14' N$. [Chang Hsieh, p. 119]
- 362 六 甲 *Ma-liu-chia* Malacca [Chang Hsieh, p. 121]. See Man-la-chia.
- 363 麻 囉 拔 *Ma-lo-pa* Malabar, also called Kerala, country, *c.* $12^{\circ} N$, on the west coast of India [Feng, *Hsi-yü*, p. 51; Sellman, p. 42; Sastri, *South India*, facing p. 34]
- 364 麻 樓 *Ma-lou* Broach, town, $21^{\circ} 43' N$, on the west coast of India. [f. 20v]
- 365 馬 八 兒 *Ma-pa-erh* [Ma'bar]. The Coromandel coast of India, *c.* $12^{\circ} N$. [Feng, *Hsi-yü*, p. 50; Sastri, *South India*, facing, p. 34]
- 366 馬 神 *Ma-shen* Bandjarmasin [Chang Hsieh, p. 123]. See Wen-lang-ma-shen.
- 367 麻 質 吉 *Ma-shih-chi* Muscat, town, $23^{\circ} 38' N$, on the east coast of Arabia. [f. 21v]
- 368 馬 旺 山 *Ma wang shan* A mountain near the coast of Burma; perhaps Cape Negrais, $16^{\circ} 03' N$. [f. 18v]
- 369 買 列 補 *Mai-lieh-pu* Mailapur (San Thomé), now a suburb of Madras, town, $13^{\circ} 02' N$, on the east coast of India. [f. 19v]
- 370 滿 者 伯 *Man-che-po-i* Majapahit (name obsolete), town, ruins *c.* $7^{\circ} 34' S$, $112^{\circ} 22' E$, in eastern Java. [Feng, p. 7]
- 371 滿 刺 加 *Man-la-chia* Malacca, town, $2^{\circ} 12' N$, on the west coast of Malaya. [f. 16; Chang Hsieh, pp. 121, 122]
- 372 慢 八 撒 *Man-pa-sa* Mombasa, town, $4^{\circ} 04' S$, on the east coast of Africa. [f. 19v]
- 373 慢 頭 嶼 *Man t'ou hsü* Poulo Saja, $0^{\circ} 47' S$, $104^{\circ} 56' E$, off the east coast of Sumatra. [Chang Hsieh, p. 121]
- 374 莽 葛 奴 *Mang-ko-nu-erh* Mangalore, town, $12^{\circ} 50' N$, on the west coast of India. [f. 20v]
- 375 芒 煙 山 *Mang yen shan* An island or mountain reached after 5 watches' sailing in direction $217\frac{1}{2}^{\circ}$ from Lü-p'eng, Lubang, in the Philippine islands; perhaps Busuanga island, $12^{\circ} 05' N$, $120^{\circ} 00' E$. [Chang Hsieh, p. 124]
- 376 貓 著 萬 *Mao chu wan li ch'ien* [Mao chu Myriad-li shoals]. Malatajur bank, *c.* $113^{\circ} 36' E$, off the south coast of Borneo. [Chang Hsieh, p. 123]
- 377 毛 蟹 州 *Mao hsieh chou* [Hairy Crab islet]. Cu Lao Loi Quan, island, *c.* $10^{\circ} 16' N$, $106^{\circ} 37' E$, off the coast of Vietnam. [Chang Hsieh, p. 120]
- 378 毛 花 蠟 *Mao-hua la* Muara harbour, *c.* $5^{\circ} 01' N$, between

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- Pulau Muara Besar and the mainland in Brunei bay on the west coast of Borneo. [Chang Hsieh, p. 124]
- 379 貓里務 *Mao-li-wu* Marinduque island, c. 13° 24' N, 122° 00' E, in the Philippine islands. [Chang Hsieh, p. 123; Fairbank and Teng, p. 229]
- 380 帽山 *Mao shan* [for Ch'ieh-nan-mao shan, Kelembak mountain]. Poulo Weh, island, 5° 54' N, off the north coast of Sumatra. [f. 18]
- 381 冒山 *Mao shan* Natuna Besar island, c. 4° 00' N, 108° 10' E, off the west coast of Borneo. [Huang Sheng-tseng, ch. 1, f. 7]
- 382 貓鼠嶼 *Mao shu hsü* [Cat and Rat islands]. Ko Maeo and Ko Hnu, islands, 7° 14' N, off the east coast of Thailand. [f. 14v]
- 383 美洛港 *Mei lo chiang* Wini road, 124° 29' E, on the north coast of Timor. The eastern limit of Chinese navigation. [Chang Hsieh, p. 122]
- 384 美洛居 *Mei-lo-chü* Molucca islands. [Chang Hsieh, p. 124]
- 385 美噠柔 *Mei ya jou chiang k'ou* ['Mei ya jou (Malatajur ?) Anchorage mouth']. Sungai Barito estuary, c. 114° 30' E, on the south coast of Borneo. [Chang Hsieh, p. 123]
- 386 門肥赤 *Men-fei-ch'ih* Mafia island, 7° 58' S, off the east coast of Africa. [f. 19v]
- 387 彌蘭 *Mi-lan* [Mihran]. Indus river [Feng, *Hsi-yü*, p. 52]. See Hsin-tu.
- 388 米洛居 *Mi-lo-chü* (Mi-liu-ho). Molucca islands [Chang Hsieh, p. 124]. See Mei-lo-chü.
- 389 米呂華 *Mi lü o* An anchorage near the north-western extremity of Luzon; perhaps the cove north of Burayoc point in Bangui bay [Chang Hsieh, p. 123]. See Mi yen chiang.
- 390 彌諾 *Mi-no* Chindwin river, joining the Irrawaddy near A-wa, Ava, in Burma. [Pelliot, 'Itinéraires', p. 171. Mi-no is the ninth-century name; possibly it was obsolete in 1433]
- 391 彌多羅 *Mi-to-lo-p'u-ch'ieh* [Mitrabhoga]. Multan, town, 30° 10' N, 71° 30' E, in West Pakistan. [Feng, *Hsi-yü*, p. 53]
- 392 密雁港 *Mi yen chiang* An anchorage near the north-western extremity of Luzon; perhaps Bangui bay, c. 18° 34' N, 120° 43' E. [Chang Hsieh, p. 123]
- 393 綿花淺 *Mien hua ch'ien* [Cotton shoals; Arab Kafasi from Malay *kapas*, 'cotton'; Portuguese 'Capasia']. Amazon Maru shoal, 2° 51' N, 101° 00' E, in Malacca strait. [f. 16v]

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- 394 花 嶼 *Mien hua hsü* [Cotton island]. Bukit Jugra, 'Parcelar hill', 2° 51' N, on the west coast of Malaya. [f. 16v; Chang Hsieh, p. 122]
- 395 緬甸 *Mien tien*. Burma. [Herrmann, p. 55]
- 396 民 陀 山 *Min-t'o shan* Vindhya mountains, c. 23° N, in central India. [Feng, *Hsi-yü*, p. 76]
- 397 默 伽 *Mo-ch'ieh* (Mo-chia). Mecca, town, 21° 30' N, 39° 54' E, in Arabia. [*Ming shih*, p. 7941, row 2]
- 398 抹兒 幹 *Mo-erh Kan-pieh* [Morro Khebir]. Ras Mabber [f. 20]. See Mu-erh-li Ha-pi-erh.
- 399 磨 嶼 *Mo hsü* An island, or hill, east of Tuban on the north coast of Java; perhaps Sukowati hill, 112° 24' E. [Chang Hsieh, p. 122]
- 400 磨 老 央 *Mo-lao-yang chiang* Anchorage of Balayan, 13° 56' N, 120° 44' E, near the west coast of Luzon. [Chang Hsieh, p. 123]
- 401 磨 力 目 *Mo li mu* A bay near the north-western extremity of Luzon; perhaps the west side of Bangui Bay [Chang Hsieh, p. 123]. See Mi yen chiang.
- 402 磨 里 山 *Mo-li shan* Bali island, c. 8° 30' S, 115° 10' E. [Chang Hsieh, p. 122]
- 403 摩 囉 尾 *Mo-lo-wei* Malwa, country, c. 23° 30' N, 75° 50' E, in central India. [Feng, *Hsi-yü*, p. 51; Sellman, p. 31]
- 404 默 德 那 *Mo-te-na* (Mo-ti-na). Medina, town, 24° 35' N, 39° 52' E, in Arabia. [*Ming shih*, p. 7941, row 4]
- 405 摩 頭 羅 *Mo't'ou-lou* Mathura, country, c. 27° 28' N, 77° 43' E, in northern India. [Feng, *Hsi-yü*, p. 52]
- 406 磨 葉 洋 *Mo yeh yang* A sea-area between Mindoro and Palawan in the Philippine islands; perhaps Linapacan strait, c. 11° 36' N, 119° 57' E. [Chang Hsieh, p. 124]
- 407 木 兒 立 *Mu-erh-li Ha-pi-erh* ['Morro Khebir']. Ras Mabber, cape, 9° 28' N, on the east coast of Africa. [f. 20]
- 408 哈 必 兒 *Mu-k'o chiang* An anchorage on the coast of Burma; perhaps Baghkhali river, mouth in 21° 31' N. [f. 19]
- 409 木 克 郎 *Mu-k'o lang* Makran, coast of Baluchistan and Persia [f. 21]. See K'o-shih.
- 410 木 骨 都 *Mu-ku-tu-shu* Mogadishu, town, 2° 02' N, on the east coast of Africa. [f. 20]
- 411 木 魯 旺 *Mu-lu-wang* Brava [f. 19v]. See Pu-la-wa.
- 412 那 伽 鉢 *Na-ch'ieh-po-tan-na* Nagapattinam, town, 10° 46' N, on the east coast of India. [Feng, *Hsi-yü*, p. 54]
- 413 哪 峨 山 *Na e shan* A 'mountain' reached after sailing for 3 watches in direction 277½° from Ta chiang, Port San

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- Vicente; perhaps Aparri, town, $18^{\circ} 21' N$, $121^{\circ} 38' E$, on the north coast of Luzon. [Chang Hsieh, p. 123]
- 414 那 孤 兒 *Na-ku-erh* [Nagur]. Peudada district, c. $96^{\circ} 35' E$, on the north coast of Sumatra. [Feng, p. 31]
- 415 那 沒 嚟 *Na-mo-li yang* 'Lamuri ocean' [Feng, p. 33]. See Nan-wu-li yang.
- 416 那 洋 嚟 *Na-pi-tan* Dapitan, town, $8^{\circ} 39' N$, on the west coast of Mindanao in the Philippine islands. [Chang Hsieh, p. 124]
- 417 那 參 山 *Na-ts'an shan* Lasem Pegunungan, mountains, c. $111^{\circ} 31' E$, on the north coast of Java. [Huang Sheng-tseng, ch. 1, ff. 7-7v]
- 418 奶 門 *Nai men* An island off the coast of Cambodia; perhaps Koh Rong Sam Lem, $10^{\circ} 36' N$, $103^{\circ} 17' E$. [f. 13]
- 419 耐 秣 陀 *Nai-mo-t'o* Narmada river, mouth in $21^{\circ} 39' N$, on the west coast of India. [Feng, *Hsi-yü*, p. 55]
- 420 南 傳 山 *Nan fu shan* An island off the west coast of Sumatra; perhaps Mansalar, $1^{\circ} 40' N$. [f. 16v]
- 421 南 海 *Nan hai* 'South sea'. The sea-area from the latitude of Champa to Java, having continental Asia with Sumatra on the west and the Philippine islands with Borneo on the east. See Addendum 1, The Oceans, p. 227.
- 422 南 帽 山 *Nan mao shan* Poulo Weh [Huang Sheng-tseng, ch. 2, f. 9]. See Mao shan.
- 423 南 渤 利 *Nan-p'o-li kuo* [Lambri; Nan-wu-li, Lamuri]. Atjeh district, c. $5^{\circ} 23' N$, $95^{\circ} 57' E$ (the position of Sigli), on the north coast of Sumatra. [*Ming shih*, p. 7919, row 2]
- 424 南 天 竺 *Nan T'ien chu* Peninsular India. [Hsiang Ta, *Kung Chen*, p. 53, quoting the Ch'ang lo inscription of 1431]. See Addendum 2, India, p. 229.
- 425 南 巫 里 *Nan-wu-li yang* [Lamuri ocean]. The sea-area extending along the north coast of Sumatra and west of Poulo Weh. [Feng, *Fei Hsin*, ch. 1, p. 25]
- 426 南 印 度 *Nan Yin-tu* Peninsular India [Chao Ju-kua, ch. 1, p. 35]. See Addendum 2, India, p. 229.
- 427 尼 巴 勒 *Ni-pa-lo* Nepal, country, c. $28^{\circ} N$, $85^{\circ} E$, in the north of India. [Feng, *Hsi-yü*, p. 55]
- 428 年 嶺 山 *Nien ling shan* A mountain near the north-western extremity of Sumatra; perhaps Seulawaih Agam, $95^{\circ} 39' E$. [Huang Sheng-tseng, ch. 2, f. 6v]
- 429 牛 屎 礁 *Niu shih chia* Buffalo rock, $1^{\circ} 09' N$, $103^{\circ} 49' E$, in Singapore strait. [f. 15v]

Appendix 1

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| 430 | 牛 屎 礁 | <i>Niu shih chiao</i> (Niu wei chiao). Mendol island, c. $0^{\circ} 38'$ N, off the east coast of Sumatra. [f. 15 v] |
| 431 | 怒 江 | <i>Nu chiang</i> Salween river, mouth in c. $97^{\circ} 32'$ E, in Burma. [Pelliot, 'Itinéraires', p. 371, n. 1; Herrmann, p. 77] |
| 432 | 八 開 港 | <i>Pa k'ai chiang</i> [Eight Openings anchorage]. The junction of Song Soirap and Song Vaico, $10^{\circ} 29'$ N, $106^{\circ} 43'$ E, in South Vietnam. [f. 13] |
| 433 | 八 可 意 | <i>Pa-k'o-i</i> Country 'beyond' central Gujarat in India; perhaps the district of Broach, c. $21^{\circ} 43'$ N, $72^{\circ} 58'$ E. [<i>Ming shih</i> , p. 7922, row 2] |
| 434 | 巴 姥 酉 | <i>Pa-lao-yu</i> An island in the Philippine islands; perhaps Palawan, c. $9^{\circ} 30'$ N, $118^{\circ} 30'$ E. [Chao Ju-kua, ch. 1, p. 84] |
| 435 | 巴 老 圓 | <i>Pa-lao-yüan</i> A place in Palawan island; perhaps Mount Mantalingajan, $8^{\circ} 48'$ N, $117^{\circ} 41'$ E. [Chang Hsieh, p. 124] |
| 436 | 吧 哩 馬
閣 | <i>Pa-li-ma-ko</i> Penambun islet, $110^{\circ} 12'$ E, off the south coast of Borneo. [Chang Hsieh, p. 123] |
| 437 | 巴 碌 頭 | <i>Pa-lu t'ou</i> [Perlak head; also, Pa-la hsü]. Ujung Peureula, promontory, $4^{\circ} 54'$ N, on the east coast of Sumatra. [f. 17 v; Chang Hsieh, p. 122] |
| 438 | 巴 哪 大
山 | <i>Pa-na ta shan</i> Murjo Pegunungan in Java [Chang Hsieh, p. 122]. See Pao-lao-an shan. |
| 439 | 八 思 尼 | <i>Pa-ssu-ni</i> Pasni, town, $63^{\circ} 28'$ E, on the coast of Baluchistan. [f. 21] |
| 440 | 八 都 馬 | <i>Pa-tu-ma</i> Martaban, town, $16^{\circ} 31'$ N, on the coast of Burma. [f. 18] |
| 441 | 琶 撓 嶼 | <i>P'a nao hsü</i> [Twisted Lute island]. Poulo Anak Sambo, island, $1^{\circ} 10'$ N, $103^{\circ} 53'$ E, in Singapore strait. [f. 15 v] |
| 442 | 白 礁 | <i>Pai chiao</i> [White rock]. Rocher Blanc (White rock), 3 miles north-east of K'un-lun Shan, Grand Condore. [f. 13] |
| 443 | 白 礁 | <i>Pai chiao</i> [White rock]. Pedra Branca, island, $1^{\circ} 19'$ N, $104^{\circ} 24'$ E, off the south coast of Malaya. [f. 15 v; Chang Hsieh, p. 120] |
| 444 | 白 礁 | <i>Pai chiao</i> [White rock]. Written near Ha-ha Tieh-wei on the west coast of India; perhaps Sacrifice rock. [f. 20] |
| 445 | 百 花 | <i>Pai hua</i> [also, Pai hua yüan]. Pajajaran, country, c. $6^{\circ} 30'$ S, $106^{\circ} 40'$ E, in western Java. [<i>Ming shih</i> , p. 7919, row 1; Hirth and Rockhill, p. 86; Schrieke, pt. II, map] |

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- 446 白 古 *Pai-ku* Pegu, country, c. $17^{\circ} 20' N$, $96^{\circ} 29' E$, in Burma. [T'ung Shin-heng, map 15]
- 447 白 蓮 *Pai-lien* Bahrein, island, $26^{\circ} 07' N$, $50^{\circ} 34' E$, in the Persian Gulf. [Hirth and Rockhill, p. 122, n. 13]
- 448 百 必 港 *Pai-pi Chiang* Sungai Berbak, river, mouth in $1^{\circ} 04' S$, $104^{\circ} 12' E$, on the east coast of Sumatra. [f. 15]
- 449 白 蒲 廷 *Pai-p'u-yen* Babuyan island, c. $19^{\circ} 31' N$, $121^{\circ} 57' E$, off the north coast of Luzon. [Hirth and Rockhill, p. 160]
- 450 白 沙 *Pai sha* [White sand]. Pagai (Pagi) islands, c. $2^{\circ} 50' S$, off the west coast of Sumatra. [f. 16]
- 451 白 沙 灣 *Pai sha wan* [White Sand bay]. A bay to the north of Qui Nhon on the east coast of central Vietnam; perhaps Vung Moi bay, $14^{\circ} 13' N$. [f. 12]
- 452 白 水 洋 *Pai shui yang* [White Water ocean]. The sea-area near Pa-li-ma-ko, Penambun islet, off the south coast of Borneo. [Chang Hsieh, p. 123]
- 453 白 土 *Pai t'u* [also, Man-t'u, Malay *batu*, 'stone']. Ujung Masam Muka, cape, $5^{\circ} 35' N$, $95^{\circ} 13' E$, on the west coast of Sumatra. [f. 18]
- 454 白 土 山 *Pai t'u shan* [White Earth mountains]. Mountains on the north coast of Luzon; perhaps Patapat mountains, c. $18^{\circ} 35' N$, $120^{\circ} 50' E$. [Chang Hsieh, p. 123]
- 455 班 盜 *Pan-i* Another name of Chiao-i (q.v.) in the Philippine islands. [Chang Hsieh, p. 124]
- 456 班 卒 *Pan-tsu* [Pansur, Panchur]. Barus, town, $2^{\circ} 01' N$, $98^{\circ} 22' E$, on the west coast of Sumatra. [f. 17]
- 457 板 獨 哇 *Pan-tu-wa* Pandua, town, c. $25^{\circ} 12' N$, $88^{\circ} 21' E$, in West Bengal. [Feng, *Fei Hsin*, ch. 1, p. 39]
- 458 榜 葛 刺 *Pang-ko-la* Bengal, country, in India and East Pakistan. [f. 19]
- 459 榜 佳 施
欄 *P'ang-chia Shih-lan* Panga Sinan, province, c. $16^{\circ} 01' N$, $120^{\circ} 13' E$, at the head of Lingayen gulf on the west coast of Luzon. [Chang Hsieh, p. 123]
- 460 旁 不 八 *P'ang pu pa tan* [Patana in Poorub?]. Perhaps Patna, town, $25^{\circ} 35' N$, $85^{\circ} 18' E$, in northern India. [f. 20]
- 461 保 老 岸
山 *Pao-lao-an shan* [Mountain of [Dja-]para]. Murjo Pegunungan, $6^{\circ} 35' S$, $110^{\circ} 52' E$, near the north coast of Java. [Chang Hsieh, p. 122]
- 462 北 還 *Pei hsien* Northern Thailand (about $13^{\circ} N$). [f. 18]
- 463 北 平 頭
山 *Pei P'ing t'ou shan* ['North Level-head mountain']. Little Andaman, island, c. $10^{\circ} 41' N$, in the Bay of Bengal. [f. 18v]

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- 464 盆 那 碌 *P'en-na-lu* Written south of Puthupatanam on the west coast of India; perhaps Kadalur point, $11^{\circ} 27' N$. [f. 20]
- 465 彭 加 刺 *P'eng-chia-la* Bengal [Huang Sheng-tseng, ch. 2, f. 7]. See Pang-ko-la.
- 466 彭 家 門 *P'eng-chia men* Bangka strait, c. $2^{\circ} 41' S$, between Bangka and Sumatra. [Feng, p. 16]
- 467 彭 加 那 *P'eng-chia-na* Country 'beyond' central Gujarat in India; perhaps the district of Mangrol, c. $21^{\circ} 07' N$, $70^{\circ} 06' E$. [*Ming shih*, p. 7922, row 2]
- 468 彭 加 山 *P'eng-chia shan* ['Bangka mountain']. Menumbing, mountain, $2^{\circ} 01' S$, $105^{\circ} 09' E$, in Bangka. [f. 15; Chang Hsieh, p. 121]
- 469 彭 杭 港 *P'eng-hang chiang* (P'eng-k'eng chiang, P'eng-heng chiang). Sungei Pahang (river), mouth in $3^{\circ} 31' N$, on the east coast of Malaya [f. 15]. See P'eng-heng.
- 470 彭 亨 *P'eng-heng* Pahang, country, c. $3^{\circ} 35' N$, on the east coast of Malaya. [*Ming shih*, p. 7919, row 1]
- 471 彭 里 *P'eng-li* A place reached after some days' voyage from Java; perhaps Bali [Feng, *Fei Hsin*, ch. 2, p. 13]. See Mo-li Shan.
- 472 筆 架 山 *Pi chia shan* [Pen-rack mountain]. Khao Samroi-yot, $12^{\circ} 14' N$, $99^{\circ} 56' E$, on the east coast of Thailand. [f. 13v]
- 473 筆 架 山 *Pi chia shan* [Pen-rack mountain]. An island reached after 15 watches' sailing in direction $127\frac{1}{2}^{\circ}$ from Sha ma ch'i t'ou, the south-western extremity of Formosa; perhaps Camiguin island, c. $18^{\circ} 55' N$, $121^{\circ} 54' E$, off the north coast of Luzon. [Chang Hsieh, p. 123]
- 474 比 刺 *Pi-la* An island in the Maldive or Laccadive group; perhaps Bitra atoll, c. $11^{\circ} 33' N$, $72^{\circ} 08' E$, in the Laccadive islands. [*Ming shih*, p. 7922, row 1]
- 475 弼 琶 囉 *Pi-p'a-lo* [Berbera]. The Somali coast of East Africa. [Chao Ju-kua, ch. 1, p. 57]
- 476 琵 琶 嶼 *P'i p'a hsü* [Lute island]. Pulau Sakijang Pelepah, island, $1^{\circ} 13' N$, $103^{\circ} 51' E$, in Singapore strait. [f. 15v]
- 477 毘 宋 嶼 *P'i-sung hsü* Pisang island, $5^{\circ} 07' S$, off the west coast of Sumatra. [f. 15]
- 478 毘 宋 嶼 *P'i-sung hsü* [P'i-tsung; wrongly, K'un-sung]. Pulau Pisang, island, $1^{\circ} 28' N$, off the west coast of Malaya. [f. 16; Chang Hsieh, p. 121]
- 479 毗 提 訶 *P'i-t'i-ho* [Videha]. Tirhut, country, c. $26^{\circ} N$, $87^{\circ} E$, in

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- northern India [Feng, *Hsi-yü*, p. 76; Majumdar, *India*, p. 293]. See Ti-na-fu-ti.
- 480 表 山 *Piao shan* [Indicator mountain. Also, Ma-li-lao piao shan, 'Bolinao Indicator mountain']. Cape Bolinao, c. 16° 23' N, 119° 53' E, on the west coast of Luzon. [Chang Hsieh, p. 123]
- 481 別 羅 里 *Pieh-lo-li* [Berberyn]. Beruwala, town, 6° 28' N, on the west coast of Ceylon [f. 19v]. 'Called the anchorage of the country of Hsi-lan'. [Huang Sheng-tseng, ch. 2, f. 9]
- 482 檳 郎 洲 *Pin-lang chou* Hon Bai Canh, island, close eastward of K'un-lun shan, Grand Condore. [f. 13]
- 483 檳 榔 嶼 *Pin-lang hsü* Pulau Pinang, island, 5° 23' N, off the west coast of Malaya. [f. 17]
- 484 賓 童 龍 *Pin-t'ung-lung* Panduranga (Phan-rang), country, c. 11° 34' N, 108° 59' E, in Champa. [Feng, *Fei Hsin*, ch. 1, p. 6]
- 485 平 洲 *P'ing chou* The Brothers, islands, 1° 11' N, 103° 21' E, in Singapore strait. [f. 16]
- 486 屏 風 山 *P'ing feng shan* [Wind-screen mountain]. Seulawaih Agam mountain, 5° 26' N, 95° 39' E, on the north coast of Sumatra. [f. 18]
- 487 平 牙 夷 *P'ing-ya-i* Banggai, island, 1° 40' S, 123° 35' E, off the east coast of Sulawesi (Celebes). [Hirth and Rockhill, p. 83; Coedès, *États*, p. 340]
- 488 波 子 陀 釐 *Po-ch'a-li-tzu* [Pataliputra]. Patna, town, 25° 35' N, 85° 18' E, in northern India. [Feng, *Hsi-yü*, p. 58]
- 489 泊 察 地 *Po ch'a ti* Chittagong [Huang Sheng-tseng, ch. 2, f. 11]. See Sa-ti-chiang.
- 490 跋 兒 牙 *Po-erh-ya* Boria headland, 17° 23' N, on the west coast of India. [f. 20v]
- 491 鉢 賴 野 *Po-lai-yeh-chia* [Prayaga]. Allahabad, town, 25° 25' N, 81° 58' E, in northern India. [Feng, *Hsi-yü*, p. 59]
- 492 迦 波 羅 高 *Po-lo-kao-an* A place situated between Sonargaon and Satgaon; perhaps Barguna village, 22° 09' N, 90° 08' E, in East Pakistan. [f. 20]
- 493 波 羅 那 *Po-lo-na-ssu* Varanasi (Benares), town, 25° 22' N, 83° 08' E, in northern India. [Feng, *Hsi-yü*, p. 75]
- 494 跋 那 *Po-na* Bannu, country, c. 33° 00' N, 70° 18' E, in West Pakistan. [Feng, *Hsi-yü*, p. 75]
- 495 波 斯 *Po-ssu* Persia. [Ming shih, p. 7918, row 3]
- 496 幘 頭 門 *Po t'ou men* [Cap gate]. A strait on the west coast of Luzon; perhaps Nagabungan bay, 18° 29' N. [Chang Hsieh, p. 123]

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- 497 破 兒 牙 *P'o-erh-ya* Boria headland [f. 20v]. See Po-erh-ya.
- 498 淳 淋 邦 *P'o-lin-pang* Palembang, country, c. $3^{\circ} 00' S$, $104^{\circ} 45' E$, near the east coast of Sumatra [Feng, p. 15]. See San Fo-ch'i.
- 499 婆 羅 *P'o-lo* Borneo, north coast [Pelliot, 'Hoja', p. 267, n. 346. Chang Hsieh, p. 124, wrongly identifies P'o-lo with P'o-ni, Brunei (Fairbank and Teng, p. 222)].
- 500 淳 泥 *P'o-ni* Brunei, country, on the west coast of Borneo [Ming shih, p. 7917, row 3; Pelliot, 'Itinéraires', p. 306; Fairbank and Teng, pp. 221-2]. See Wen-lai.
- 501 卜 刺 哇 *Pu-la-wa* Brava, town, $1^{\circ} 07' N$, on the east coast of Africa. [Ming shih, p. 7921, row 3]
- 502 布 路 沙 *Pu-lu-sha-pu-lo* [Purusapura]. Peshawar, town, $34^{\circ} 02' N$, $71^{\circ} 37' E$, in West Pakistan. [Feng, Hsi-yü, p. 59]
- 503 卜 得 法 *Pu-te-fa-t'an* [reading Pu for Shih and t'an for nan; Budfatan]. Puthupatanam (Putuppattanam), village, $11^{\circ} 33' N$, on the north bank of the Murat (Kotta) river, near Badagara, on the west coast of India. [f. 20]
- 504 莆 家 龍 *P'u-chia-lung* Pekalongan, town, $109^{\circ} 40' E$, on the north coast of Java. [Chao Ju-kua, ch. 1, p. 23]
- 505 蒲 甘 *P'u-kan* Pagan, country, c. $21^{\circ} 30' N$, $95^{\circ} 00' E$, in Burma. [Chang Hsieh, p. 120]
- 506 蒲 里 咤 *P'u-li-lao* Polillo, island, c. $14^{\circ} 50' N$, $121^{\circ} 55' E$, in the Philippine islands. [Chao Ju-kua, ch. 1, p. 84]
- 507 蒲 奔 大 *P'u-pen ta hai* [Great sea of P'u-pen]. Madura strait, c. $7^{\circ} 20' S$, off the east coast of Java. [Chang Hsieh, p. 122; Rockhill, Part II, p. 251]
- 508 撒 背 鯨 *Sa hsi ling* A stream on the coast of Baluchistan [f. 21]. See Ch'ien fo ch'ih.
- 509 撒 刺 抹 *Sa-la-mo hsü* As Salama, Great Quoin, island, $26^{\circ} 30' N$, off the east coast of Arabia. [f. 22]
- 510 撒 地 港 *Sa-ti-chiang* [Ch'a-ti-chiang. Che-ti-chiang]. Chittagong, town, $22^{\circ} 20' N$, on the coast of East Pakistan. [f. 19]
- 511 三 角 嶼 *San chüeh hsü* [Three Corner island]. Pulau Perhentian Besar, island, $5^{\circ} 53' N$, off the east coast of Malaya. [f. 14v]
- 512 三 佛 齊 *San Fo-ch'i* 'Sri Vijaya', country, in eastern Sumatra with its capital at first in Palembang and later in Djambi. [Ming shih, p. 7916, row 4; Coedès, *États*, pp. 335-6]
- 513 三 佛 嶼 *San fo hsü* Alang Tiga islets, c. $0^{\circ} 31' S$, $104^{\circ} 02' E$, off the east coast of Sumatra. [f. 15]

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- 514 三 麥 嶼 *San mai hsü* Maspari (Lucipara), island, $3^{\circ} 13' S$, off the east coast of Sumatra. [f. 14v; Chang Hsieh, p. 121]
- 515 三 密 港 *San-mi chiang* Sampit bay, c. $113^{\circ} 05' E$, on the south coast of Borneo. [Chang Hsieh, p. 123]
- 516 三 吧 哇 *San-pa-wa* Sumbawa island, c. $8^{\circ} 30' S$, $118^{\circ} 00' E$, in the Eastern Archipelago. [Chang Hsieh, p. 122]
- 517 三 島 *San tao* [Three islands]. A region in the Philippine islands; perhaps including Calamian, Palawan, and Busuanga. [Feng, *Fei Hsin*, ch. 2, p. 9; Rockhill, Part II, p. 268, n. 1]
- 518 僧 伽 *Seng-ch'ieh* [fully, *Seng-ch'ieh-la*, 'Singhala']. Ceylon [Feng, *Fei Hsin*, ch. 1, p. 34]. See Hsi-lan.
- 519 沙 姑 馬 山 *Sha ku ma shan* Jabal Quraiyat (mountain), $23^{\circ} 10' N$, $58^{\circ} 44' E$, near the east coast of Arabia. [Mao Yüan-i, ch. 240, f. 22v]
- 520 沙 刺 溜 *Sha-la liu* (Sha liu). Mulaku atoll (Mulaku island, $2^{\circ} 57' N$), in the Maldive islands. [f. 19v]
- 521 沙 里 八 丹 *Sha-li-pa-tan* Masulipatam, town, $16^{\circ} 11' N$, on the east coast of India. [f. 20; Huang Sheng-tseng, ch. 2, f. 6v]
- 522 沙 里 灣 泥 *Sha-li-wan-ni* Perhaps Cannanore, town, $11^{\circ} 51' N$, on the west coast of India. [*Ming shih*, p. 7922, row 2; Pelliot, 'Voyages', p. 297]
- 523 沙 礁 *Sha t'ang chiao* Siberut, island, c. $1^{\circ} 25' S$, off the west coast of Sumatra. [f. 16]
- 524 沙 糖 淺 *Sha t'ang ch'ien* Poulo Nipa reef, $1^{\circ} 08' N$, $103^{\circ} 39' E$, in Singapore strait. [f. 15v]
- 525 沙 塘 淺 *Sha t'ang ch'ien* San Andres islands, $13^{\circ} 34' N$, $121^{\circ} 50' E$, off the north-western extremity of Mao-li-wu, Marinduque island, in the Philippine islands. [Chang Hsieh, p. 123]
- 526 沙 吳 皮 *Sha wu p'i* Merundung island, $2^{\circ} 04' N$, $109^{\circ} 06' E$, off the west coast of Borneo. [f. 13]
- 527 沙 瑤 *Sha yao* A place 'inside' Na-pi-tan, Dapitan; perhaps Baliangao, $123^{\circ} 36' E$, on the north coast of Mindanao. [Chang Hsieh, p. 124]
- 528 上 臘 港 *Shang la chiang* An anchorage to the west of Point Ké Ga on the coast of central Vietnam; perhaps Song Dinh estuary, $107^{\circ} 46' E$. [f. 12v]
- 529 上 水 *Shang shui* ['Upper water']. Lopburi, town, $14^{\circ} 44' N$, $100^{\circ} 31' E$, in Thailand. [Feng, p. 21]
- 530 紹 納 福 兒 *Shao-na-fu-erh* Jaunpur [Feng, *Fei Hsin*, ch. 1, p. 39]. See Chao-na-p'u-erh.

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- 531 紹 山 *Shao shan* Salebabu island, 3° 55' N, 126° 41' E, between Mindanao and Halmahera. [Chang Hsieh, p. 124]
- 532 紹 武 淡 *Shao-wu tan shui chiang* [Tiau-bu (in Amoy), Fresh Water anchorage]. Tiabo river, estuary, 1° 52' N, on the east coast of Halmahera. [Chang Hsieh, p. 124]
- 533 射 箭 山 *She chien shan* [Shoot Arrow mountain]. Bukit Banang, hill, 1° 48' N, on the west coast of Malaya. [f. 16]
- 534 捨 刺 齊 *She-la-ch'i* Surat, country, c. 21° 12' N, 72° 48' E, on the west coast of India. [*Ming shih*, p. 7922, row 2]
- 535 閩 爛 達 *She-lan-ta-lo* Jullundur, country, c. 31° 20' N, 75° 40' E, in northern India. [Feng, *Hsi-yü*, p. 35]
- 536 閩 盤 *She-p'an* [Cha-ban]. Vijaya (name obsolete) in Champa [Grousset, vol. II, p. 555]. See Fo-shih and Chan ch'eng.
- 537 設 比 奈 *She Pi-nai* Sri Banoy, citadel, c. 13° 53' N, 109° 05' E, in Champa. [Feng, p. 1; Pelliot, 'Itinéraires', p. 209]
- 538 閩 婆 *She-p'o* Java [*Ming shih*, p. 7916, row 3]. See Chao-wa.
- 539 舍 衛 乞 *She wei ch'i shih* [Cravasti]. A Buddhist name for Panduranga in Champa [Feng, *Fei Hsin*, ch. 1, p. 6; Rockhill, Part II, p. 98]. See Pin-t'ung-lung and Wang she ch'eng.
- 540 昇 龍 *Sheng lung* [Rising Dragon]. Thang Long (later, Hanoi), town, 21° 02' N, 105° 49' E, capital of Vietnam. Also called Tung ching by the Chinese, and Dong Do, Dong Quan, and Dong Kinh by the Vietnamese. [Grousset, vol. II, pp. 610-11, 619, n. 1; Le Thanh Khoi, pp. 200, 205, 208, 217, 506]
- 541 聖 山 *Sheng shan* Mount Kina Balu, 6° 05' N, near the west coast of Borneo. [Chang Hsieh, p. 124]
- 542 石 城 山 *Shih ch'eng shan* Simeulu (Simalur), island, 2° 40' N, off the west coast of Sumatra. [f. 17]
- 543 石 崎 山 *Shih ch'i shan* An island containing the trade-centre of Su-lu, the Sulu islands; perhaps Jolo, c. 6° 00' N, 121° 07' E. [Huang Sheng-tseng, ch. 1, f. 16v]
- 544 石 礁 *Shih chiao* Pulau Sribuat, island, 2° 41' N, off the east coast of Malaya. [f. 15]
- 545 十 二 子 *Shih erh tzu shan* [The Twelve Boys mountains]. Islands off the west coast of Borneo; perhaps Burung Kepulauan, 0° 45' N. [f. 13v]
- 546 石 星 石 *Shih hsing shih t'ang* Macclesfield bank, c. 19° 12' N, 113° 53' E, in the China Sea. [f. 11]
- 547 失 刺 比 *Shih-la-pi* Perhaps Selebar, 3° 54' S, on the west coast of Sumatra. [*Ming shih*, p. 7922, row 2]

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- 548 十 刺 哇 *Shih-la-wa* [error for Pu-la-wa]. Brava. [f. 19v]
 549 失 里 兒 *Shih-li-erh* Ash Shihr, town 49° 34' E, on the south coast of Arabia. [f. 20v]
 550 失 力 大 *Shih li ta shan* A mountain, or island, reached after 35 watches' sailing in direction about 200° from Tung tung, Poulo Sapatu; perhaps Natuna Besar island, c. 4° 00' N, 108° 10' E, off the west coast of Borneo. [Chang Hsieh, p. 122]
 551 石 牌 蛟 *Shih p'ai chiao* [Stone Tablet Dragon]. Rocher Plat (Flat rock), 15° 11' N, 108° 56' E, off the east coast of central Vietnam. [f. 11v]
 552 石 排 山 *Shih p'ai shan* [Stone Tablet mountain]. A hill about 27 miles north of Khao Samroiyot on the east coast of Thailand; perhaps Khao Takiap, 12° 30' N. [Chang Hsieh, p. 120]
 553 石 班 洲 *Shih pan chou* Ko Phangan, island, 9° 42' N, 100° 02' E, off the east coast of Thailand. [f. 14v]
 554 石 山 *Shih shan* [Stone mountain]. Pulau Lang Tengah, island, 5° 47' N, off the east coast of Malaya. [f. 14v]
 555 石 塘 *Shih t'ang* Paracel reefs, c. 15° 47' N, 111° 12' E, in the China Sea. [f. 11]
 556 十 得 法 *Shih-te-fa-nan* [error for Pu-te-fa-t'an]. Puthupatanam. [f. 20]
 557 士 員 嶼 *Shih yüan hsü* An island off the east coast of Malaya; perhaps Pulau Chipu, 5° 40' N. [f. 14v]
 558 雙 嶼 *Shuang hsü* [Double islands]. The Brothers, islands, c. 3° 23' N, off the east coast of Sumatra. [f. 17]
 559 雙 嶼 *Shuang hsü* [Double islands]. Islands off the west coast of Sumatra; perhaps Tanah Bala and Tanah Masa, c. 1° 20' S. [f. 16v]
 560 雙 牌 *Shuang p'ai* [Double tablets]. A name of Ta chi shui, Sape strait. [Chang Hsieh, p. 122]
 561 雙 銀 塔 *Shuang yin t'a* [Double Silver Pagodas]. A place reached after 1 watch's sailing in direction 112½° from Chi-li-shih, Gresik; perhaps Kemere hill, 112° 51' E, on Madura island. [Chang Hsieh, p. 122]
 562 順 化 *Shun hua* Hué, prefecture, c. 16° 29' N, on the coast of central Vietnam. [Chang Hsieh, p. 119; Herrmann, p. 59]
 563 順 化 港 *Shun-hua chiang* Anchorage of Shun hua, Hué. [Chang Hsieh, p. 119]
 564 順 塔 *Shun-t'a* [Sunda]. Banten, town, 6° 02' S, 106° 08' E, on the north coast of Java. Also called Hsia Chiang. [Chang Hsieh, p. 121]

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- 565 娑 夷 水 *So i shui* Gilgit, country, c. 35° 50' N, 74° 15' E, in Kashmir. [Feng, *Hsi-yü*, p. 30]
- 566 瑣 里 *So-li* [Chola]. Nagapattinam district, c. 10° 46' N, on the east coast of India. [*Ming shih*, p. 7919, row 1]
- 567 鎖 納 兒 *So-na-erh-chiang* Sonargaon, town, c. 23° 40' N, 90° 25' E, in East Pakistan. [Feng, p. 59; Beames, map]
- 568 思 吉 港 *Ssu-chi chiang* 'Anchorage of Ssu-chi[-tan]', that is, Jao-tung, Jaratan [Chang Hsieh, p. 122]. See Su-chi-tan.
- 569 思 魯 瓦 *Ssu-lu-wa* Surabaya [*Ming shih*, p. 7916, row 4]. See Su-lu-ma-i.
- 570 巳 龍 溜 *Ssu-lung liu* Haddummati atoll in the Maldivé islands ('Isdu' island, 2° 07' N). [f. 19]
- 571 蘇 安 山 *Su-an shan* [Sual mountain]. Mount Verde, 16° 03' N, 120° 04' E, in Lingayen gulf on the west coast of Luzon. [Chang Hsieh, p. 123]
- 572 蘇 吉 丹 *Su-chi-tan* Sedayu district, c. 7° 00' N, on the east coast of Java. [Chang Hsieh, p. 122; *Ming shih*, p. 7916, row 4]
- 573 速 古 荅 *Su-ku-ta-la* Socotra, island, c. 12° 30' N, off the east coast of Africa [f. 22]. See Hsü to.
- 574 速 古 臺 *Su-ku-t'ai* Sukhot'ai, country, c. 17° 00' N, 99° 50' E, in Thailand. [Pelliot, 'Itinéraires', p. 244, n. 3]
- 575 蘇 囉 茶 *Su-lo-t'u* [Surashtra]. Kathiawar, country, c. 22° N, on the west coast of India. [Feng, *Hsi-yü*, p. 66]
- 576 蘇 祿 *Su-lu* Sulu, country, capital Jolo, 6° 04' N, 121° 00' E. [Chang Hsieh, p. 124]
- 577 蘇 魯 馬 *Su-lu-ma-i* (Su-erh-pa-yeh). Surabaya, town, 7° 12' S, 112° 44' E, on the east coast of Java. [Feng, p. 7]
- 578 蘇 律 山 *Su-lü shan* Solor island, c. 123° 00' E, off the south coast of Flores island in the Eastern Archipelago. [Chang Hsieh, p. 122]
- 579 蘇 門 荅 *Su-men-ta-la* (Su-wen-ta-na). 'Semudera', town about 5 miles up the Krueng Pasai, mouth in 97° 13' E, on the north coast of Sumatra. [f. 17v]
- 580 蘇 門 荅 *Su-men-ta-la kuo* [Su-wen-ta-la kuo, the country of Semudera]. Lho Seumawe district, on the north coast of Sumatra. Often confused with Pasai [Chang Hsieh, p. 122; *Ming shih*, p. 7918, row 3]. See last entry.
- 581 孫 姑 那 *Sun-ku-na* Songkhla, town, 7° 11' N, on the east coast of Thailand. [f. 14v]
- 582 孫 刺 *Sun-la* An island in the Maldivé or Laccadive group; perhaps Chetlat atoll, c. 11° 41' N, 72° 41' E, in the Laccadive islands. [*Ming shih*, p. 7922, row 1]

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- 583 大 急 水 *Ta chi shui* [Great Swift water]. Sape strait, c. $8^{\circ} 43' S$, between the islands Sumbawa and Komodo in the Eastern Archipelago. [Chang Hsieh, p. 122]
- 584 大 港 *Ta Chiang* [Great anchorage]. Port San Vicente, c. $18^{\circ} 30' N$, $122^{\circ} 08' E$, between Luzon and Palau island. [Chang Hsieh, p. 123]
- 585 打 金 山 *Ta chin shan* [Gold-working mountain]. Langgar hill, $5^{\circ} 49' S$, on the west coast of Sumatra. [f. 15]
- 586 大 咀 喃 *Ta Chü-nan* Perhaps Kayankulam in India [Feng, *Fei Hsin*, ch. 2, p. 16]. See Ta Ko-lan.
- 587 大 峯 山 *Ta feng shan* A mountain near the entrance to Maenam Mae Klong in Thailand; perhaps the Nipple, $13^{\circ} 03' N$, $99^{\circ} 46' E$. [Huang Sheng-tseng, ch. 2, f. 1 v]
- 588 達 哈 *Ta-ha* Daha, town, $70^{\circ} 51' S$, $112^{\circ} 03' E$, in east Java [*Ming shih*, p. 7916, row 2; Schrieke, pt. 11, map]. See Tieh-li.
- 589 大 橫 山 *Ta Heng shan* Poulo Panjang, island, $9^{\circ} 18' N$, $103^{\circ} 28' E$, 77 miles off the coast of South Vietnam. [f. 13]
- 590 大 小 花 面 *Ta Hsiao Hua mien* [Big and Little Tattooed Faces]. Batak country; in the vicinity of Rigaih bay, $4^{\circ} 39' N$, on the west coast of Sumatra. [f. 18]
- 591 大 小 姨 山 *Ta hsiao i shan* [Wife's Elder and Younger Sisters mountain]. Sangian island, $5^{\circ} 57' S$, in Sunda strait. [f. 14 v]
- 592 大 小 雲 螺 *Ta Hsiao Yün lo* [Great and Small Cloudy Shells]. Places nearly half-way from Chi hsü, Toren island, to Su-lü, Solor island, on the south coast of Flores island; perhaps Ambu Rombu mountain, $121^{\circ} 11' E$, and Redjo mountain. [Chang Hsieh, p. 122]
- 593 打 回 *Ta-hui* Country 'beyond' central Gujarat in India; perhaps the district of Diu, c. $20^{\circ} 43' N$, $71^{\circ} 00' E$. [*Ming shih*, p. 7922, row 2]
- 594 大 葛 蘭 *Ta Ko-lan* [Great Ko-lan]. Perhaps Kayankulam village, $9^{\circ} 10' N$, on the west coast of India. [*Ming shih*, p. 7921, row 1]
- 595 大 靈 胡 山 *Ta ling hu shan* Mountain on the east coast of North Vietnam; perhaps Hui Am Yap, $21^{\circ} 07' N$, $107^{\circ} 08' E$. [f. 11 v]
- 596 荅 魯 蠻 *Ta-lu-man* Village at the mouth of Krueng Pasai, $97^{\circ} 13' E$, on the north coast of Sumatra. [Feng, p. 27]
- 597 大 莫 山 *Ta Mo shan* Mountain near the coast of Burma; perhaps Cheduba island, c. $18^{\circ} 46' N$. [f. 18 v]

Appendix 1

- 598 荖 那 溪 *Ta-na ch'i hsü* ['(Udjung) Tanah river island']. An island or hill on the north side of Singapore strait; perhaps Bukit Pengerang, $1^{\circ} 22' N$. [f. 15 v]
- 599 荖 那 思 *Ta-na-ssu-li* Tenasserim, village, $12^{\circ} 06' N$, $98^{\circ} 51' E$, in Burma. [f. 17 v]
- 600 荖 那 思 *Ta-na-ssu-li* Tenasserim island, $12^{\circ} 34' N$, off the west coast of Burma. [f. 18]
- 601 大 泥 *Ta-ni* Pattani, country, c. $6^{\circ} 54' N$, on the east coast of Thailand. [Chang Hsieh, p. 120]
- 602 大 士 蘭 *Ta shih lan* An island in the Gulf of Thailand; perhaps Ko chang, $12^{\circ} 01' N$, $102^{\circ} 19' E$. [f. 13]
- 603 打 歪 *Ta-wai* Tavoy, town, $14^{\circ} 04' N$, $98^{\circ} 11' E$, in Burma. [f. 18]
- 604 打 歪 嶼 *Ta-wai hsü* Tavoy island, $13^{\circ} 06' N$, off the coast of Burma. [f. 18]
- 605 打 歪 山 *Ta-wai shan* Tavoy point, $13^{\circ} 32' N$, in Burma. [f. 18]
- 606 大 灣 *Ta wan* [Great bay]. Bay of Van Fong, $12^{\circ} 33' N$, on the east coast of central Vietnam. [f. 12 v]
- 607 大 灣 *Ta wan* [Great bay]. Gulf of Masira, c. $19^{\circ} 30' N$, on the south coast of Arabia. [f. 21]
- 608 大 魚 港 *Ta yü chiang* [Great Fish anchorage]. Krueng Langsa estuary, $4^{\circ} 33' N$, on the east coast of Sumatra. [Huang Sheng-tseng, ch. 2, f. 4 v]
- 609 塔 林 嶼 *T'a lin hsü* An island reached after 5 watches' sailing in direction $142\frac{1}{2}^{\circ}$ from Ma an hsü (q.v.); perhaps Seraja island, $2^{\circ} 40' N$, $108^{\circ} 35' E$, off the west coast of Borneo. [Chang Hsieh, p. 122]
- 610 玳 瑁 港 *Tai mei chiang* [Tortoise-shell anchorage]. Agno river estuary, c. $16^{\circ} 03' N$, $120^{\circ} 08' E$, in Lingayen gulf on the west coast of Luzon. [Chang Hsieh, p. 123]
- 611 玳 瑁 洲 *Tai mei chou* [Tortoise-shell islet]. Poulo Ceçir de Mer (Ceçir-in-the-ocean), island, $10^{\circ} 32' N$, $108^{\circ} 55' E$, 40 miles off the coast of central Vietnam. [f. 12 v; Chang Hsieh, p. 122]
- 612 玳 瑁 嶼 *Tai mei hsü* [Tortoise-shell island]. Ko Krah, island, $8^{\circ} 25' N$, $100^{\circ} 45' E$, off the east coast of Thailand. [f. 14]
- 613 玳 瑁 山 *Tai mei shan* [Tortoise-shell mountain]. Cape Batangan, $15^{\circ} 14' N$, on the east coast of central Vietnam. [f. 11 v]
- 614 太 公 *T'ai-kung* Tagaung (Old Pagan), town, $23^{\circ} 25' N$, $96^{\circ} 00' E$, in Burma. [Pelliot, 'Itinéraires', p. 176, n. 2, and p. 177, n. 1]

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- 615 丹 重 *Tan-chung* A place some days' voyage from Java; perhaps Tan-jung Wu-lo, Tandjung Pura, in Borneo. [Feng, *Fei Hsin*, ch. 2, f. 13]
- 616 担 嶼 *Tan hsü* [Duster islands]. Poulo Sumur, islands, $5^{\circ} 51' S$, off the east coast of Sumatra. [f. 14v]
- 617 單 嶼 *Tan hsü* [Single island]. Berhala, island, $3^{\circ} 46' N$, off the east coast of Sumatra. [f. 17; Chang Hsieh, p. 122. Shih Yung-t'u, f. 53, has Tan hsü, 'Red island', in the sailing directions.]
- 618 單 戎 世 *Tan-jung Shih-li shan* Tandjung Malatajur, $113^{\circ} 36' E$, on the south coast of Borneo. [Chang Hsieh, p. 123]
- 619 力 丹 武 *Tan-jung Wu-lo* (Tan-jung Pu-lo). Tandjung Pura (name obsolete), modern Matan district, c. $1^{\circ} 03' S$, on the west coast of Borneo. [Chao Ju-kua, p. 28; Schrieke, pt. 1, p. 22]
- 620 淡 馬 錫 *Tan-ma-hsi* [Tumasik]. Old Singapore. [f. 15v]
- 621 淡 門 錫 *Tan-ma-hsi men* [Tumasik strait]. Selat Sinki and the passage either north (Keppel Harbour) or south of Pulau Blakang Mati. [Chang Hsieh, p. 121; 'Shun-feng', ff. 14, 32, 32v]
- 622 耽 摩 立 *Tan-mo-li-ti* [Tamralipti]. Tamluk, town, $22^{\circ} 18' N$, $87^{\circ} 58' E$, in West Bengal. [Feng, *Hsi-yü*, p. 69; Sellman, pp. 16, 17]
- 623 淡 巴 *Tan-pa* Perhaps Langkasuka (Pattani) in Thailand. [Ming shih, p. 7919, row 1; Fairbank and Teng, pp. 235-6]. See Lang-hsi-chia.
- 624 淡 水 港 *Tan shui chiang* [Fresh Water estuary]. An anchorage near the north-western extremity of Luzon; perhaps the southern part of Bangui bay [Chang Hsieh, p. 123]. See Mi yen chiang.
- 625 淡 水 港 *Tan shui chiang* [Fresh Water estuary]. Sungai Deli estuary, c. $3^{\circ} 47' N$, on the east coast of Sumatra. [Feng, p. 26]
- 626 淡 水 港 *Tan shui chiang* [Fresh Water estuary]. Sungai Musi (Palembang river), mouth in $2^{\circ} 20' S$, on the east coast of Sumatra. [Hsiang Ta, *Kung Chen*, p. 11]
- 627 淡 洋 *Tan-yang* [Tamiang]. Sungai Tamiang estuary, $4^{\circ} 25' N$, on the east coast of Sumatra. [Huang Sheng-tseng, ch. 2, f. 4v]
- 628 淡 洋 *Tan yang* 'Fresh-water ocean'; perhaps identical with Tan Shui Chiang, Sungai Musi. [Feng, *Fei Hsin*, ch. 2, p. 2; Rockhill, Part II, p. 124, n. 3]
- 629 濤 門 *T'ao men* [Billows gate]. A strait near Piao shan, Cape

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- Bolinao; perhaps the entrance to Lingayen gulf, on the west coast of Luzon. [Chang Hsieh, p. 123]
- 630 底 里 *Ti-li* Delhi, town, 28° 38' N, 77° 17' E, capital of the Delhi sultanate, in northern India. [*Ming shih*, p. 7922, row 2]
- 631 帝 那 伏 *Ti-na-fu-ti* [Tirabukhti]. Tirhut, country in northern India [Feng, *Hsi-yü*, p. 72]. See P'i-t'i-ho.
- 632 帝 地 盤 山 *Ti-p'an shan* Pulau Tioman [Chang Hsieh, p. 120]. See Ch'u-ma shan.
- 633 提 夷 *T'i i* [T'i barbarians?]. Country on the coast of central Vietnam, west of Ma ling ch'iao, which perhaps is Nuoc isle, 14° 14' N. [Chang Hsieh, p. 119]
- 634 刁 元 *Tiao-yüan* Diu, town, 20° 43' N, on the west coast of India. [f. 21]
- 635 牒 幹 *Tieh-kan* [read Tieh-wa, 'Diva', island]. A generic name for the Maldiva and Laccadive islands. [Feng, p. 50]
- 636 碟 里 *Tieh-li* Kediri, country, c. 7° 48' S, 111° 59' E, in eastern Java. [*Ming shih*, p. 7916, row 4]
- 637 迭 微 *Tieh-wei* Tiwi, village, 22° 49' N, on the east coast of Arabia. [f. 21 v]
- 638 碟 于 里 *Tieh-yü-li* [Dewal]. Tieh-yü-li Hsin-te [Diul-Scinde], the joint port of Dewal and Sindi (ruined), about 20 miles south of Thatta, 24° 43' N, near the coast of West Pakistan. [f. 21]
- 639 鐵 砧 嶼 *T'ieh chen hsü* [Iron Anvil island]. Great Basses reef, 6° 10' N, 81° 28' E, south-east of Ceylon. [Huang Sheng-tseng, ch. 2, f. 7 v]
- 640 鐵 釘 嶼 *T'ieh ting hsü* [Iron Nail island]. Perhaps Galang Baru island, c. 0° 37' N, 104° 17' E, to the south of Bintan island. [Chang Hsieh, p. 121]
- 641 天 竺 *T'ien chu* India [Feng, *Hsi-yü*, p. 33]. See Yin-tu. See Addendum 2, India, p. 229.
- 642 天 方 *T'ien fang* [The Heavenly Square]. Mecca district, c. 21° 30' N, 39° 54' E, in Arabia. [Feng, p. 58]
- 643 丁 機 宜 *Ting-chi-i* Tebing Tinggi, country, c. 0° 52' N, 102° 41' E, on the east coast of Sumatra. [Chang Hsieh, p. 121; *Ming shih*, p. 7919, row 2]
- 644 丁 加 下 *Ting-chia-hsia-lu* [error for Ting-chia-lu]. Trengganu, country, c. 5° 20' N, on the east coast of Malaya. [f. 14 v]
- 645 鼎 峙 *Ting chih* [Triple Peak]. Cape Varella peninsula, c. 12° 52' N, on the coast of central Vietnam. [Huang Sheng-tseng, ch. 1, f. 4 v]

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- 646 丁 得 把 *Ting-te-pa-hsi* [Dandabasi]. Deogarh harbour, 16° 23' N, on the west coast of India. [Mao Yüan-i, ch. 240, f. 22 v]
- 647 斗 嶼 *Tou hsü* [Peck island]. Pulau Tenggol, island, 4° 49' N, off the east coast of Malaya. [f. 15; Chang Hsieh, p. 120]
- 648 頭 巾 礁 *T'ou chin chiao* [Head-kerchief rocks]. Capones islands, c. 14° 55' N, off the west coast of Luzon. [Chang Hsieh, p. 123]
- 649 卒 葛 得 *Tsa-ko-te* [Jacquete, Jaked]. Dwarka, town, 22° 14' N, on the west coast of India. [f. 21]
- 650 屑 坡 *Ts'eng-pa* [Zange-bar, the region of the blacks]. East coast of Equatorial Africa. [Chao Ju-kua, ch. 1, p. 55]
- 651 佐 法 兒 *Tsu-fa-erh* [Dhufar]. Al-Mansura (name obsolete), town, ruins at Al-Balad, 2 miles east of Salala, 17° N, on the south coast of Arabia. [f. 21; Gibb, *The Travels*, vol. 2, p. 382, n. 71]
- 652 翠 蘭 嶼 *Ts'ui lan hsü* [Kingfisher-blue islands]. Nicobar and Andaman islands (Great Nicobar, c. 6° 50' N), in the Bay of Bengal. [f. 18 v]
- 653 獨 掛 頭 *Tu-kua t'ou shan* [Takwa Head mountain]. Hlaem Phra Chao, headland, 7° 44' N, on the west coast of Thailand. [f. 17 v]
- 654 都 里 馬 *Tu-li Ma-hsin-fu* [read tang for fu; Tell Masandam]. Ras Masandam, 26° 23' N, on Jazirat Masandam, off the east coast of Arabia. [f. 21]
- 655 都 魯 把 *Tu-lu Pa-wang* [wrongly, Tu Ma-heng]. Wai Tulang Bawang, river, mouth in 4° 23' S, on the east coast of Sumatra. [f. 14 v]
- 656 都 馬 板 *Tu-ma-pan* Tumapel, country, capital Singosari, 7° 53' N, 112° 38' E, in eastern Java. [*Ming shih*, p. 7916, row 2]
- 657 杜 板 *Tu-pan* Tuban, in Java [Feng, p. 7]. See Chu-man.
- 658 獨 石 門 *Tu shih men* [Single Rock strait]. Perhaps the strait, c. 0° 48' N, 104° 41' E, between Kelong island and Gin Besar island, off the south coast of Bintan island. [Chang Hsieh, p. 121]
- 659 塗 山 海 *T'u shan hai k'ou* Cua Khau (estuary), 18° 06' N, on the east coast of Vietnam. [Chang Hsieh, p. 119]
- 660 短 知 蠻 *Tuan chih man* Written between Quilon and Cochin; perhaps Alleppey, town, 9° 30' N, on the west coast of India. [f. 20]

Appendix 1

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| 661 | 東 | 際 | 海 | <i>Tung chi hai</i> Cambodia [Chang Hsieh, p. 120]. See Chien-pu-chai. |
| 662 | 東 | 吉 | 山 | <i>Tung chi shan</i> Durai island, 0° 32' N, 103° 36' E, off the east coast of Sumatra. [f. 15 v] |
| 663 | 東 | 港 | | <i>Tung Chiang</i> Air Saleh, river, mouth in 105° 06' E, on the east coast of Sumatra. [f. 15] |
| 664 | 東 | 京 | | <i>Tung ching</i> Tongking, North Vietnam. [Chang Hsieh, p. 119] |
| 665 | 東 | 京 | | <i>Tung ching</i> [Eastern capital]. Thang Long (later Hanoi) [T'ung Shih-heng, map 15]. See Sheng lung. |
| 666 | 東 | 竹 | 山 | <i>Tung Chu shan</i> [East Bamboo mountain]. Pulau Aur, island, 2° 26' N, off the east coast of Malaya [f. 15]. See Hsi chu shan and Tung hsi chu. |
| 667 | 東 | 海 | | <i>Tung hai</i> 'Eastern sea'. The seas east of Amoy [Feng, <i>Fei Hsin</i> , ch. 2, p. 15]. See Addendum 1, The Oceans, p. 227. |
| 668 | 東 | 西 | 竺 | <i>Tung Hsi Chu</i> [East and West Bamboos]. Pulau Aur [Chang Hsieh, p. 120]. See Tung chu shan. |
| 669 | 東 | 西 | 董 | <i>Tung Hsi Tung</i> Poulo Sapatu and Great Catwick island [Chang Hsieh, p. 122]. Tung Hsi Tung is the 'Tomsitom' of Linschoten. See Tung Tung and Hsi Tung. |
| 670 | 東 | 南 | 海 | <i>Tung nan hai</i> 'South-eastern sea'. The portion of the 'Eastern sea', below the latitude of Japan [Feng, <i>Fei Hsin</i> , ch. 2, p. 7]. See Addendum 1, The Oceans, p. 227. |
| 671 | 東 | 蛇 | 籠 | <i>Tung she lung</i> Tandjung Datu, 2° 05' N, 109° 39' E, on the west coast of Borneo. [f. 13] |
| 672 | 東 | 都 | | <i>Tung tu</i> [Eastern capital; Annamite, Dong Do]. Thang Long (later Hanoi) [Grousset, vol. II, p. 611]. See Sheng lung. |
| 673 | 東 | 董 | | <i>Tung tung</i> Poulo Sapatu, island, 9° 59' N, 109° 05' E, 72 miles off the coast of central Vietnam. [f. 12 v] |
| 674 | 洞 | 吾 | | <i>Tung-wu</i> Taungu (Toungoo), country, c. 19° 00' N, 96° 30' E, in Burma. [Pelliot, 'Itinéraires', p. 293, n. 5 from p. 292] |
| 675 | 東 | 洋 | | <i>Tung yang</i> 'Eastern Ocean'. The seas east of Amoy [Feng, <i>Fei Hsin</i> , ch. 1, p. 13]. See Addendum 1, The Oceans, p. 227. |
| 676 | 東 | 印 | 度 | <i>Tung Yin-tu</i> 'Eastern India'. A name applied to Bengal. [Huang Sheng-tseng, ch. 2, f. 11; <i>Ming shih</i> , p. 7921, row 2] |
| 677 | 銅 | 鼓 | 山 | <i>T'ung ku shan</i> Gunung Asu Ansang, mountain, 1° 49' N, 109° 34' E, on the west coast of Borneo. [f. 13] |

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- 678 草 *T'ung ts'ao* An island near Culao Ré; perhaps Culao Bo Bai (North island), $15^{\circ} 26' N$, off the east coast of central Vietnam. [Huang Sheng-tseng, ch. 1, f. 1v; Pelliot, 'Itinéraires', p. 208]
- 679 外 羅 山 *Wai lo shan* Culao Ré, island, $15^{\circ} 23' N$, off the east coast of central Vietnam. [f. 11v]
- 680 萬 年 嶼 *Wan nien hsü* [Cantonese, Man Nyn]. St Petrus or Muri islet, $1^{\circ} 54' N$, off the west coast of Borneo. [f. 13]
- 681 萬 生 石 *Wan sheng shih t'ang hsü* Paracel islands, c. $15^{\circ} 47' N$, $111^{\circ} 12' E$, in the China Sea. [f. 11]
- 682 塘 魁 礁
老 港 *Wang ken chiao lao chiang* [Old anchorage of Wang ken island?]. An anchorage reached after 7 watches' sailing in direction $112\frac{1}{2}^{\circ}$ from Zamboanga in Mindanao; perhaps Sarangani bay, c. $5^{\circ} 50' N$, $125^{\circ} 07' E$. [Chang Hsieh, p. 124]
- 683 王 舍 城 *Wang she ch'eng* [The town of the Royal Lodge]. Rajagrha, the old capital of Magadha in India; but applied to Champa. [Feng, p. 1]
- 684 望 瀛 海
口 *Wang ying hai k'ou* [Wang ying sea mouth]. Mouth of Lach Chao in North Vietnam [Chang Hsieh, p. 119]. See Ch'ing hua chiang.
- 685 文 萊 *Wen-lai* Brunei, country, c. $4^{\circ} 53' N$, on the west coast of Borneo. Here was the dividing line between Hsi yang, 'Western Ocean', and Tung yang, 'Eastern Ocean'. [Chang Hsieh, p. 124]
- 686 文 郎 馬
神 *Wen-lang-ma-shen* [wrongly, Wen-lang-ma-lang]. Bandjarmasin, town, $3^{\circ} 20' S$, $114^{\circ} 35' E$, on the south coast of Borneo. [Chang Hsieh, p. 123]
- 687 文 武 樓 *Wen-wu-lou* Mindoro island, c. $13^{\circ} N$, $121^{\circ} E$, in the Philippine islands. [Chang Hsieh, p. 123]
- 688 甕 橙 *Weng-man* Oman, country, c. $22^{\circ} 30' N$, at the southeastern extremity of Arabia. [Chao Ju-kua, ch. 1, p. 61]
- 689 蜈 蚣 嶼 *Wu ch'i hsü* Poulo Laut, island, $4^{\circ} 37' N$, $108^{\circ} 00' E$, in the North Natuna islands. [Huang Sheng-tseng, ch. 1, f. 7]
- 690 五 嶼 *Wu hsü* [Five islands]. Water islands, c. $2^{\circ} 07' N$, near Malacca, off the west coast of Malaya. [Chang Hsieh, p. 121]
- 691 烏 然 泥 *Wu-jan-ni* Ujjain, town $23^{\circ} 09' N$, $75^{\circ} 43' E$, in central India. [Feng, Hsi-yü, p. 74]
- 692 烏 里 舍
城 *Wu-li-she Ch'eng* [Orissa city]. Cuttack, town, $20^{\circ} 25' N$, $85^{\circ} 57' E$, near the east coast of India. [f. 20]

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| 693 | 烏里舍 | | <i>Wu-li-she T'a</i> [Orissa Pagoda]. Puri, town, 19° 48' N, on the east coast of India. [f. 201] |
| 694 | 勿里洞 | | <i>Wu-li-tung shan</i> Belitung island [Chang Hsieh, p. 122]. See Ma-li-tung. |
| 695 | 烏沙刺 | | <i>Wu-sha-la-t'i</i> A country 'beyond' central Gujarat in India; perhaps the district of southern Gujarat, c. 21° 20' N, 71° 00' E. [<i>Ming shih</i> , p. 7922, row 2] |
| 696 | 屋口 | 燕港 | <i>Wu-tang chiang k'ou</i> Anchorage of Oton, 122° 28' E, on the south coast of Panay island in the Philippine islands. [Chang Hsieh, p. 124] |
| 697 | 烏爹 | | <i>Wu-tieh</i> Orissa [Feng, <i>Fei Hsin</i> , ch. 2, p. 16]. See Wu-li-she ch'eng. |
| 698 | 烏林 | 丁機 | <i>Wu-ting Ch'iao-lin</i> [Udjung Tanah (Malay), Land's End]. The country, c. 1° 25' N, later called Jou-fo, 'Johor', at the south-eastern extremity of the Malay peninsula. [Chang Hsieh, p. 120] |
| 699 | 啞齊 | | <i>Ya-ch'i</i> Atjeh, country, c. 5° 33' N, 95° 19' E, at the north-western extremity of Sumatra. [Feng, <i>Fei Hsin</i> , ch. 2, p. 13] |
| 700 | 亞細亞 | | <i>Ya-hsi-ya</i> Asia. [Feng, <i>Hsi-yü</i> , p. 17] |
| 701 | 亞牙山 | 里大 | <i>Ya-li Ta shan</i> [Great mountain of Galle]. Rumassala Kanda, hill, 80° 14' E, the eastern side of Galle harbour on the south coast of Ceylon. [Huang Sheng-tseng, ch. 2, f. 7v] |
| 702 | 亞路 | | <i>Ya-lu</i> [Aru]. Deli district, c. 3° 47' N, on the east coast of Sumatra. [f. 17; Chang Hsieh, p. 122] |
| 703 | 亞東記 | 東嶼 災 | <i>Ya shu tsai chi hsü</i> (Hsi shu tsai mo hsü. Ya la shih chi hsü). Daimaniyat islands, 23° 51' N., off the east coast of Arabia. [f. 22] |
| 704 | 洋嶼 | | <i>Yang hsü</i> [Ocean island, error for Goat island]. Poulo Gambir, island, 13° 37' N, off the east coast of central Vietnam. [f. 12] |
| 705 | 羊嶼 | | <i>Yang hsü</i> [Goat island]. An island off the east coast of Malaya; perhaps Pulau Redang, 5° 47' N. [f. 14v] |
| 706 | 秧渚 | | <i>Yang-t'a</i> [error for Chih-t'a]. Jidda [Huang Sheng-tseng, ch. 3, f. 11v]. See Chih-ta. |
| 707 | 椰子塘 | | <i>Yeh t'ui'ang</i> [Coconut embankment]. Batu Ketjil (Betua island), 5° 53' S, off the west coast of Sumatra. [f. 15] |
| 708 | 閩河 | 牟那 | <i>Yen-mou-na ho</i> Yamuna (Jumna) river in northern India (joining the Ganga river at Po-lai-yeh-chia, Allahabad). [Feng, <i>Hsi-yü</i> , p. 77] |
| 709 | 烟墩嶼 | | <i>Yen tun hsü</i> [Beacon island]. Pulau Susu Dara, island, 5° 57' N, off the east coast of Malaya. [f. 14v] |

- 710 煙 筒 山 *Yen t'ung shan* [Smoking Pipe mountain]. Lao Ma Nha, island, $13^{\circ} 16' N$, off the coast of central Vietnam. [Chang Hsieh, p. 119]
- 711 印 嶼 *Yin hsü* [Printing island]. Batek island, [Malay, 'Painting island'], $123^{\circ} 59' E$, off the north coast of Timor. [Chang Hsieh, p. 122]
- 712 印 度 *Yin-tu* India [Feng, *Hsi-yü*, p. 33]. See T'ien chu. See Addendum 2, India, p. 229.
- 713 鸚 哥 嘴 山 *Ying ko tsui shan* [Parrot's Beak mountain]. Namunakuli, mountain, $6^{\circ} 56' N$, $81^{\circ} 06' E$, in Ceylon. [Feng, p. 34]
- 714 猶 地 亞 *Yu-ti-ya* Ayutthaya, town, $14^{\circ} 22' N$, $100^{\circ} 30' E$, in Thailand. [T'ung Shih-heng, map 15]
- 715 雲 屯 海 門 *Yün t'un hai men* [Cloud-cluster sea-gate]. Cua Hoi (estuary) in Vietnam [Chang Hsieh, p. 119]. See Chi ch'ang men.

ADDENDUM 1. THE OCEANS

The attempt to study the mediaeval Chinese oceans is attended by certain difficulties. First, the dictionaries are wrong in stating that *yang* means 'the ocean'; for Chinese maps are studded with the names of small sea-areas which are designated *yang*; thus, the northern part of Hang chou bay was called Huang kung yang, 'Yellow Duke ocean', in the *Kuang-yü t'u*.¹ Secondly, the Chinese sources sometimes contain errors; for instance, the *Ming shih* erroneously states that the Ts'ui lan hsü, Nicobar islands, lay in the South-eastern sea, whereas it is clear from other sources that they were in the Western Ocean. Thirdly, the nomenclature sometimes causes confusion; thus, in the approach to San tu ao (inlet) were two small sea-areas called, respectively, Ta hsi yang, 'Great Western ocean', and Hsiao hsi yang, 'Little Western ocean',² and in the Mao K'un Map I ssu ma ssu tao (Isthmus island, $26^{\circ} 32' N$) is called Hsiao hsi yang, 'Little Western ocean'. It seems that the mediaeval Chinese made no distinction between *yang*, 'ocean', and *hai*, 'sea'; and that when they referred to 'the great ocean', they sometimes used a more elaborate expression such as 'southern great ocean sea'.³

The main division in the seas south of China was between Western Ocean and Eastern Ocean. The dividing line was said to begin at Ta tan (Ta-t'an, $118^{\circ} 09' E$) island near the entrance of Hsia men (Amoy) harbour;⁴ another point on the dividing line was at Wen-lai (Brunei, $114^{\circ} 56' E$) on the west

¹ W. Fuchs, *The 'Mongol Atlas' of China* (Peking, 1946), map 38.

² Lü P'an and Lu Ch'eng-en, ff. 25 v, 26.

³ Chou Ch'ü-fei, ch. 11, f. 9.

⁴ Chang Hsieh, p. 118; Lü P'an and Lu Ch'eng-en, f. 22.

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coast of Borneo;¹ the line then ran east of Ma-yeh-weng (Belitung island, 108° 20' E);² and finally the line passed to the east of Pai hua (Pajajaran) in western Java, that is, about 106° 58' E.³ The Western Ocean was also known as the South-western Ocean; and the latter is represented, expressly or impliedly, as washing the east coast of continental Asia from Chiao chih (Tongking) to Wu-ting Chiao-lin (Ujung Tanah, Johor),⁴ Pai hua (Pajajaran) in western Java,⁵ the south, east, and north coasts of Sumatra,⁶ Hsi-lan (Ceylon), Ku-lin (Quilon), Ku-li (Calicut),⁷ the countries of the Ta-shih (Arabia),⁸ and K'un-lun Ts'eng-ch'i (perhaps Pemba).⁹ (In the twelfth century the Arabian Sea was known as the Eastern sea of the Ta-shih (Arabs), and the eastern Mediterranean as the Western sea of the Ta-shih;¹⁰ but these names may have become obsolete in the fifteenth century. In the sixteenth century Father Ricci introduced a different and more detailed nomenclature; for instance, the China Sea is called 'Great Ming sea'.)

The Eastern Ocean extended to Japan;¹¹ south of Japan it was also known as the South-eastern Ocean; and the latter is represented, expressly or impliedly, as washing the coasts of Liu ch'iu (Ryukyu islands),¹² Chi lung (Keelung) in Formosa,¹³ Feng chia Shih-lan (Panga Sinan) near the west coast of Luzon,¹⁴ Mei-lu-chü (Molucca islands),¹⁵ Wen-lai (Brunei) on the west coast of Borneo,¹⁶ and Chao-wa (Java) except Pai hua (Pajajaran) in the western extremity. Formosa strait was known as Little Eastern ocean.¹⁷ East of Java was the Eastern Great ocean sea.¹⁸

Overlapping both the Western Ocean and the Eastern Ocean was the Southern Ocean; this extended as far north as Chan ch'eng (Champa);¹⁹ so that Champa was said to be both in the South-western sea and in the Southern sea; on the east the Southern Ocean washed the coast of Lü-sung (Luzon);²⁰ in the south it extended as far as San Fo-ch'i (Palembang), and further to the south was the Southern Great ocean sea with its myriad islands including Java.²¹

¹ Chang Hsieh, p. 124; *Ming shih*, p. 7913, row 3.

² *Ming shih*, p. 7913, row 4.

³ *Ming shih*, p. 7919, row 1.

⁴ Hirth and Rockhill, p. 126; *Ming shih*, p. 7919, row 1 (P'eng-heng), and p. 7919, row 2 (Jou-fo).

⁵ *Ming shih*, p. 7919, row 1.

⁶ Feng, Ma Huan's Poem, p. 1 and Feng's note; *Ming shih*, p. 7918, row 3 (Su-men-ta-la), and p. 7919, row 1 (Lan-pang).

⁷ Feng, p. 42.

⁸ Hirth and Rockhill, p. 26.

⁹ Hirth and Rockhill, p. 149, n. 1.

¹⁰ Hirth and Rockhill, pp. 26-7.

¹¹ Fairbank and Teng, p. 185.

¹² *Ming shih*, p. 7911, row 4.

¹³ *Ming shih*, p. 7913, row 2; Chang Hsieh, p. 124.

¹⁴ *Ming shih*, p. 7913, row 4.

¹⁵ *Ming shih*, p. 7913, row 2.

¹⁶ *Ming shih*, p. 7913, row 3; Chang Hsieh, p. 124.

¹⁷ Chang Hsieh, p. 124.

¹⁸ Chou Ch'ü-fei, ch. 11, f. 9v.

¹⁹ *Ming shih*, p. 7914, row 1.

²⁰ *Ming shih*, p. 7912, row 4.

²¹ Hirth and Rockhill, p. 26; Fairbank and Teng, p. 187.

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It may be said, then, that the Southern Ocean extended southwards from the latitude of Champa, between continental Asia with Sumatra on the west and the Philippine islands with Borneo on the east, as far south as Java.

ADDENDUM 2. INDIA

India was known as T'ien chu or as Yin-tu. There were 'five Indias'; that is, 'five T'ien chu' or 'five Yin-tu'.¹ These must be northern India, eastern India, southern India, western India, and central India. Eastern India included Bengal.¹ Southern India meant peninsular India.² Central India included Magadha (modern Bihar).³

CONVENTIONAL NAMES OF IDENTIFIED PLACES

(The numbers refer to entries in the Gazetteer above)

Adam's Peak 184	Bai Canh, Hon 482
Aden 6	Balabac 326
Agno river 610	Balayan 400
Ai lao 9	Bali 402
Alang Tiga 513	Banang island 287
Allahabad 491	Banang, Bukit 533
Amazon Maru shoal 393	Bandjarmasin 366 686
Anak Sambo, Poulo 118 441	Banggai 487
Andaman islands 12	Bangka 468
Androth 13	Bangka strait 80 111 198 466
Angkor 232	Banjuasin, Air 175
Anjidiv 1	Bannu 494
Arakan 3 331	Banten 195 564
Aruah islands 47	Barito, Sungai 385
Asia 700	Barus 265 456
Asir, Ras 252	Batak 590
Assam 254	Batangan, Cape 613
Asu Ansang, Gunung 677	Batek 711
Atjeh 423 699	Batu 123
Aur, Pulau 177 666 668	Belitung 358 694
Ava 7	Bengal 458 465 676
Ayutthaya 714	Berbak, Sungai 448
Babuyan 449	Berhala (Kuan hsü) 277
Bahrein 447	Berhala (Tan hsü) 617

¹ *Ming shih*, p. 7921, row 2.

³ Hirth and Rockhill, p. 101.

² Hirth and Rockhill, p. 98, n. 1.

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- Beruwala 481
Bidong Laut, Pulau 139
Bintan Great hill 351
Blakang Mati, Pulau 621
Bolinao, Cape 480
Boria headland 490 497
Borneo, North 499
Brava 411 501 548
Broach 364
Brothers, The (Hsiao K'un-lun)
204
Brothers, The (P'ing chou) 485
Brothers, The (Shuang hsü) 558
Brunei 26 500 685
Buaja 14
Buffalo rock 429
Buffle, Ile (Buffalo isle) 115
Burma 395
Butang, Pulau 267
Ca, Song 159
Calicut 264
Camarines 173
Cambay 246
Cambodia 18 37 57 98 244 661
Canggu 25
Caponos 648
Car Nicobar 113
Cauvery 82
Ceçir de Mer, Poulo (Ceçir-in-the-ocean) 611
Ceylon 182 184 518
Cham, Culao 22
Champa 17 683
Chao, Lach 117 684
Chaul 64
Chau Vien, Nui 23
Cheil, Ras el 168
Cherakali, Bukit 58
Chidambaram 102
Chiengmai 114
Chindwin 390
Chittagong 16 34 489 510
Chola 566
Cochin 250
Coimbatore 239 245
Colombo 247
Comorin, Cape 240
Coromandel 365
Cuttack 692
Cuyo 249
Daha 588
Daik, Gunung 344
Daimaniyat 186 703
Dalupiri 226
Dapitan 416
Dapoer 316
Datu, Poulo 334
Datu, Tandjung 671
Dau Goc Let, Nui 279
Delhi 630
Deli 4 702
Deli, Sungai 625
Delly, Mount 197 211
Dempo 171
Deogarh harbour 646
Dewal 638
Dhufar 651
Diamond island 352
Diu 634
Djambi 20
Djambuaie, Udjung 61
Djapara 461
Dondra head 156
Durai 662
Dwarka 649
Elephant point 290
Equatorial Africa 650
Fadifolu 236
Fahl 286
Fai Fo river 282
Fausse (False) Poulo Obi 71
Frères, Les (The Brothers) 204

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- Fuga 158
Galela 103
Galle 701
Galuh, Udjung 142
Gambir, Poulo 704
Ganga 170
Ganjam 297
Gelam 91 262
Gezusters 283
Gilgit 565
Gumbo 135
Goa 24
Grahi 78
Grand Condore 292
Great Basses reef 639
Great Basses ridge 134
Great Carwick 190 669
Gresik 51 217 237 251
Gwadar 260
Gwatar 261
Gujarat 299
Haddummati 570
Hafun 161
Hainggyi Kyun 259
Heo, Hon 95
Hermana Mayor 314
Himalaya mountains 221
Hnu, Ko 382
Hoanh-son 172
Hoi, Cua 44 715
Honavar 169
Hormuz, Jazireh 223
Hué 562
Hué river 200 563
Iang, Ko 153
Ilin, Mount 345
Ilin strait 231
India 188 218 424 641 676 712
Indus 218 387
Irrawaddy 311
Isdu 570
Jaldan 166
Jarak, Pulau 43
Jaratan 233 568
Jask 15
Jaunpur 31 530
Java 32 273 538
Jidda 104 706
Jugra, Bukit 60 394
Jullundur 535
Kait, Tandjung 285
Kalhat 74
Kalinga 94
Kalingapatam 81
Kalpeni 83
Kampar, Sungai 238
Kampili 243
Kanauj 255
Kanchi 97
Karimata 55 59 76
Karimundjawa 50
Kashmir 258
Kathiawar 575
Kebatu 354
Kedah 63
Kediri 636
Ké Ga, Point 106
Kej 257
Kelai 68
Kelantan 48
Kelantan, Sungei 263
Keppel harbour 621
Kerala 54 363
Ketjil, Batu 707
Khau, Cua 659
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Khong, Nui 160
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Kumpai 242
Kundur 235
Kutch 270
Labon, Poulo 317
Labuan 29
Laccadive islands 324 635
Lampung Bay 302
Langgar 585
Langkasuka 304 341
Langkawi, Pulau 340
Langsa, Krueng 608
Lang-son 319
Lang Tengah, Pulau 554
Lao chua 307
Lao Ma Nha 710
Larak, Jazireh 298
La'sa 300
Lasem Pegunungan 417
Laut, Poulo 689
Lavo 330
Lima island 328
Lingga Peak 344
Little Andaman 463
Little Karimun 49
Llo-Llo 329
Loi Quan, Cu Lao 377
Lombok 306
Lon, Hon 327
Lopburi 529
Lovek 335
Lubang 346
Luhaiya 325
Luzon 347
Mabber, Ras 398 407
Macclesfield bank 546
Madura strait 507
Mae Klong, Maenam 215
Maeo, Ko 382
Mafia island 386

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Majapahit 370
Makran 409
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Malacca 274 362 371
Malatajur bank 376
Malatajur, Tandjung 618
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Malindi 359
Malwa 403
Mangalore 374
Manikpatna 269
Mapor 28
Marinduque 379
Martaban 440
Masam Muka, Udjung 453
Masandam, Ras 654
Masira, Gulf of 607
Maspari 514
Masulipatam 521
Mathura 405
Mecca 397 642
Medina 404
Mekong 303
Mendol 430
Menumbing 468
Merbok, Sungei 62
Merundung 526
Meureudu 312
Mindoro 687
Minicoy 355
Mirbat 357
Mogadishu 410
Molucca islands 384 388
Mombasa 372
Mon-cay river 88
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Muscat 367
Musi, Sungai 119 626
Myengun Kyun 332
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Namunakuli 713
Narmada 419
Natuna Besar 381
Negombo 308
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Pahang, Sungei 469
Pajajaran 445
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Pattani 304 601
Pattani, Ao 291
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Pekalongan 504
Pelompong, Tandjung 315
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Perhentian Besar, Pulau 511
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Peshawar 502
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Polillo 506
Pura, Tandjung 619
Puri 693
Puthupatanam 503 556
Qais, Jazireh 96
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Quilon 201 203
Qui Nhon 213
Quiniluban 310
Qishm 72
Quitangonha 256
Quraiyat 266
Quraiyat, Jabal 519
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Rakata 321
Rangsang 284
Ré, Culao 679
Rocher Blanc (White rock) 442
Rocher Plat (Flat rock) 551
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Rusa 224
Sai Buri, Maenam 174
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Saint Jacques, Cape 152 153
Saint Petrus 680
Saja, Poulo 373
Sakijang Pelepah, Pulau 476
Salama, As 509
Salebabu 531
Saleh, Air 663
Salween 431
Sampit Bay 515
Samroiyot, Khao 472
Samui, Ko 163
San Andres islands 525
Sandwip island 124
Sangboy 178
Sangeang island 38 75 227 309
Sangeang strait 228
Sangian island 591
Santiago, Cape 136
Santiago island 356
San Vicente, Port 584
Sapatu, Poulo 669 673
Sape strait 560 583
Satgaon 35
Satumu, Pulau 27 343
Sedayu 572
Sembilan island 122
Sembilan islands 121
Semudera 275 579 580
Seulawaih Agam 486
Seumawe, Lho 220 580
Shihr, Ash 549
Shun Hua 562 563
Siberut 523
Simeulu 542
Sindi 216 638
Singapore 620
Singapore strait 343 621
Sinki, Selat 621
Socotra 219 573
Soirap, Song 19 432
Solor 578
Somali coast 475
Sonargaon 214 567
Songkhla 581
South cliff 110
Sri Banoy 537
Sribuat, Pulau 544
Srikakulam 145
Sri Vijaya 512
Sual 571
Sukhot'ai 574
Sulu 576
Sumbawa 516
Sumur, Poulo 616
Sunda 564
Sunda Kelapa 77
Surabaja 569 577
Surat 534
Susu Dara, Pulau 709
Tagaung 614
Tambora, Mount 141 248
Tamiang, Sungai 627
Tamluk 622
Tanah, Udjung 698
Tao, Ko 349
Tapanuli bay 338
Taunggu 674
Tavoy 603
Tavoy island 604
Tavoy point 605
Tebing Tinggi 643
Tega, Pulau 293
Tembakul, Pulau 276
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Tenasserim island 600
Tenggol, Pulau 647
Thailand 212 462

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Thanh Hoa 116 176 189
Tiabo river 532
Tiladummati 68
Timor 52 108 383
Tinggi, Pulau 86
Tioman, Pulau 138 632
Tirhut 479 631
Tiwi 637
Tombak Rantjang 339
Tongking 10 87 664
Toren 46
Trengganu 644
Tuban 132 657
Tudju islands 66
Tulang Bawang, Wai 655

Tumapel 656
Ujjain 691
Vaico, Song 432
Valabhi 196
Van Fong, Bay of 606
Varanasi 493
Varella, Cape 320 645
Verde, Mount 571
Verlaten island 350
Vindhya mountains 396
Vijaya 17 154 536
Wai, Poulo 202
Water islands 41 85 690
Weh, Poulo 205 380 422
Wini road 383
Yamuna river 708

APPENDIX 2

THE MAO K'UN MAP

INTRODUCTORY

Chinese maps are shy and unobtrusive objects, blushing unseen maybe in a Peking palace, or maybe in a 'Forest of Steles' at Sian or Soochow, in a library at Nanking, Tokyo, Leningrad, Florence, Paris, Washington, or Cambridge, or on a bookseller's shelves at Chien an or London; and maybe one will be found secreting itself in a Japanese cloister, a Portuguese tower, a Spanish palace, or a Dutch institute; but they are gradually being extracted from obscurity and made the subject of examination. The examination is usually concerned with a single map, or with a few maps numbering perhaps as many as a dozen.

No writer has published an English or French book devoted solely to Chinese cartography as a whole; Tooley, in the 'most comprehensive book on early maps yet published in England' has a short section on Chinese map-making, but mentions only three maps made by Chinese compilers;¹ Bagrow in 'the latest general history of cartography' quotes only seven;² and geographers are indebted to Dr J. Needham, F.R.S., for the masterly exposition in which the story of Chinese cartography was first unfolded in 1959.³

This appendix is concerned with the study of one document, which in the past has usually been referred to as 'the *Wu-pei chih* Chart'; but since the book entitled *Wu-pei chih* contains other maps, the document is here called 'the Mao K'un Map', after a suggestion made by Duyvendak. The principal object of this study is to translate the contents of the document and to identify the places named in it. The places are recorded in the order, as near as maybe, in which they are represented to be brought abeam by a vessel travelling on the outward voyage from Nanking to the west along the track indicated in the map; and such co-ordinates are added as may enable the reader to locate the places without difficulty.

It is not proposed to make an exhaustive examination of the map, for that

¹ R. V. Tooley, *Maps and Map-makers* (London, 1949), p. 105.

² L. Bagrow, *Die Geschichte der Kartographie* (Berlin, 1951).

³ J. Needham, *Science and Civilisation in China*, vol. III (Cambridge, 1959), pp. 497-590.

The Mao K'un Map

would take several hundred pages; thus, no attempt is made to specify every error or omission, or to seek out every conclusion which may be drawn by geographers, historians, astronomers, or other experts. It is not considered necessary to reproduce the map, since it was reprinted by Hsian Ta in 1961; but f. 19v is shown in Fig. 5 (p. 290). Nor is it considered necessary to write the Chinese characters for the names; but the characters for two hundred and fifteen of the names, referring to places outside China, are given in Appendix 1, China in southern Asia, 1433.

EARLIER MAPS

China has nothing to compete with the most ancient maps of Egypt and Babylon, and the first historical mention of a map in China relates to the year 227 B.C. But an unknown Chinese geographer produced 'the most remarkable cartographic work of its age in any culture', the *Yü-chi t'u*, 'Map of the Tracks of Yü', the earliest extant map of China, engraved on stone in 1137; and a Chinese encyclopaedia, the *Liu-ching t'u*, 'Illustrations of [Objects mentioned in] the Six Classics', edited by Yang Chia in about 1155, contains the oldest printed map in any culture.¹ There are still extant six maps produced by Chinese cartographers before the end of the fourteenth century, and it may be useful to specify them.

i. Relating to about 1040. Anonymous. *Hua-i t'u*, 'Map of China and the Barbarian Countries'. Engraved on stone in November 1137. In the Pei lin Museum at Sian.

ii. Relating to about 1100. Anonymous. *Yü-chi t'u*, 'Map of the Tracks of Yü'. Engraved on stone in May 1137. In the Pei lin Museum at Sian.

iii. Relating to about 1155. A map of West China. In a book edited by Yang Chia, *Liu-ching t'u*, 'Illustrations of [Objects mentioned in the] Six Classics'. In the Peking National Library.

iv. Relating to 1126. Huang Shang. *Chui-li t'u*, 'Geographical Map'. Made in 1193. Engraved on stone in 1247. On a stele at Soochow.

v. Relating to 1229. Anonymous. A city-map of Soochow. Engraved on a stone stele at Soochow.²

vi. Relating to 1329. A map showing the countries to the north-west of China proper. In a book entitled *Yüan ching-shih ta-tien*, 'Institutes of the Yüan Era'.³

This list excludes (a) a Sino-Tibetan copy of an Arabic world-map, dated about 733, taken to Japan in 858,⁴ (b) two maps about which further in-

¹ Needham, vol. III, p. 534; fig. 226, facing p. 548; fig. 227, facing p. 549. The earliest printed map in Europe dates from 1475.

² Needham, vol. III, pp. 547-51.

³ Bretschneider, vol. II, p. 4; Needham, vol. III, p. 554.

⁴ Hiroshi Nakamura, *East Asia in Old Maps* (2nd printing, Tokyo, 1964), fig. 1 and p. 8.

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formation is required, namely, a map of about 1125 in Chang Chien's *Hsi-hsia chi-shih pen-mo*, 'The Story of Hsi-hsia from beginning to end', and a map of about 1270 preserved in Japan, (c) Chu Ssu-pen's map of 1320, since we know only the revision of 1555.¹

EXTANT VERSIONS

The next composition in order of time is the marine cartogram which constitutes the subject of this essay. It is printed on forty pages (folios 2v to 22) in chapter 240 of a book in sixty-four volumes by Mao Yüan-i; the book bears the title *Wu-pei chih*, 'Records of Military Preparations'; the preface is dated 1621, and it was offered to the throne in 1628, so that it was not printed until after that date. An example of the *Wu-pei chih*, containing this map, rests in the Library of Congress at Washington, and the Librarian has kindly supplied the photostats which were used for this study. The British Museum possesses several defective examples of the *Wu-pei chih*, but all lack this map. A different version of the map appears in Shih Yung-t'u's *Wu-pei pi-shu*, 'A Confidential Treatise on Military Preparations', c. 1800, and the same writer's *Hai-yün yao-lüeh*, 'An Abstract of the Essentials of Sea-transport', c. 1840; and though this version is generally inferior, it embodies a few better readings, which have proved useful. An example of the *Wu-pei pi-shu* may be found in the Sinological Institute at Leyden.

PROVENANCE

Mao Yüan-i, the author of the *Wu-pei chih*, fought for the Ming against the Manchus, and in 1629 helped to recover four cities from the latter; but later his soldiers revolted, and he was banished to Chang p'u in Fukien province. Mao Yüan-i's grandfather, named Mao K'un, lived from 1511 to 1601; he was on the staff of Admiral Hu Tsung-hsien, with whom he collaborated; Hu Tsung-hsien's life-work was the defence of the Chinese coast against the Japanese pirates; he held various high offices, was governor of Fukien province, and rose to be president of the ministry of war; he wrote several books and inspired the publication of Cheng Jo-tseng's large work on coast-defence, illustrated with several maps, called *Ch'ou-hai t'u-pien*, 'Illustrated Compendium of Seaboard Strategy'; the preface of that work, dated 1562, was written by Mao K'un. (Cheng Jo-tseng wrote many other geographical works with maps.)

These details were mentioned by Duyvendak in order to show that in the circle to which Mao K'un belonged, the most vivid interest was taken in matters concerning the geography of the coast; and Mao K'un lived so long that he may easily have transferred some of that interest to his grandson

¹ Fuchs, p. 7.

The Mao K'un Map

Mao Yüan-i. It may be that the map which Mao Yüan-i published in his work formed part of the geographical material which was collected by the circle of Hu Tsung-hsien and Cheng Jo-tseng, and may have been deposited in the archives by the former when he was governor of Fukien; or, alternatively, Mao Yüan-i may have obtained the map directly from his grandfather. To Mao K'un, then, belongs the credit of appreciating the value of the map, and it was probably he who wrote the introduction. Thus this map can be traced back to the second or third quarter of the sixteenth century, only a little more than a hundred years after the time of Cheng Ho, the celebrated Chinese ambassador who returned from his last official voyage in 1433.¹

ASSOCIATIONS

The introduction, after a brief reference to Cheng Ho as having been employed by the emperor for these foreign explorations, concludes with the words 'His maps record carefully and correctly the distances of the road and the various countries and I have inserted them for the information of posterity and as a memento of [his] military achievements.' This map 'is supposed to give Cheng Ho's travelling route', wrote Duyvendak, and there are at least three reasons for thinking that this supposition is correct; (a) the introduction to the map associates it with the voyages of Cheng Ho; (b) in the title of the map it is stated that the ships started from 'Treasure-ship yard', and 'treasure-ship' is the technical term designating the vessels of the imperial fleets despatched by the Yung-lo and Hsüan-te emperors to the 'Seas of the South';² (c) the map shows the routes to Hormuz, the Red Sea, and the coast of East Africa, whereas Chinese merchant ships ceased travelling as far as India before 1400, and the only known voyages from China to further places after that date were those made by Cheng Ho's fleets.

The association of the map with Cheng Ho's expeditions is generally accepted by modern scholars, for instance, Duyvendak, Pelliot, Fujita, Needham, Wheatley, and Hsiang Ta. That being granted, we are now in a position to understand the significance of the map, for it seems reasonably certain that it belongs to the genus of sketch-maps which Kung Chen says were given, together with a manual of compass-bearings, to the commanders.³

Kung Chen's tantalizingly brief note necessarily implies that a considerable amount of work must have been done behind the scenes; but we can only guess what it was and make suggestions based on probabilities arising from the circumstances. The editor suggests that the astrological officer took

¹ Duyvendak, *Ma Huan*, pp. 17-22.

² Pelliot, 'Voyages', p. 255, n. 1.

³ Hsiang Ta, *Kung Chen*, p. 12, 'they take a *chen ching* ("needle manual", that is, a manual recording compass-bearings) and a *i'u shih* ("map-form", that is, a sketch-map), and give them to the commanders'.

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the astronomical observations, and that he and his four astrologers¹ had their office where they recorded and tabulated the astronomical data; also that it was in this office that these five officers and their clerks recorded and sifted the 'mass of general nautical information' (place-names, boundaries, depths, tides, winds, stars, compass-bearings, etc.) which was brought to them; and further, that this office composed the sketch-maps of the routes and made the necessary copies. In addition to information supplied by local pilots, the compilers probably had access to records of Arab and Chinese voyages, and Indian, Arab, and Chinese directories and charts. We know that the Cholas were great navigators; they had charts, some of which were seen by Marco Polo; and they had nautical instructions, some of which were in the hands of the Arab pilots Ahmad ibn Majid and Sulaiman bin Ahmad.²

One may appropriately quote what the 'Shun-feng' says on Cheng Ho's expeditions, 'On repeated voyages were compared and corrected charts of the direction of the compass-needle and the guiding stars and a copy of a drawing of the configuration of the islands in the sea and the condition of the water'; the expression 'a drawing of the configuration of the islands in the sea' provides an apt description of the Mao K'un Map.³

AUTHOR

If the above opinion is roughly correct, then this map will not have been composed by any one man, but will have been prepared in an office where a cartographer and his assistants corrected and supplemented existing maps in the light of new information brought to them during the course of different voyages. The matter of place-names alone must have involved an appreciable amount of work, since it was probably necessary to interview both Chinese and foreigners, after which the proper Chinese characters would have to be settled and recorded. We know that interpreters were used, and in the case of persons from distant lands a 'double interpretation' was necessary; for instance, a speaker of Swahili might have to make his statement to an Arab, the latter interpreting from Arabic into an Indian language, and the Indian into Chinese; it is clear from the map that the Chinese found difficulty over such names as 'Morro-Khebir', which one Chinese thought should be rendered as 'Mu-erh-li Ha-pi-erh', while another Chinese preferred 'Mo-erh Kan-pieh'. If copies of the sketch-maps were supplied to commanders of Cheng Ho's 'detached' squadrons, a considerable number must have been made, and there is thus a greater chance that more of them will be brought to light.

¹ See above, Introduction 1(M), Personnel.

² On these pilots see Wheatley, *Khersonese*, pp. 233-43.

³ 'Shun-feng', f. 5; Wheatley, *Khersonese*, pp. 92-3.

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The fact that the maps have such a different character from the ordinary Chinese map indicates, Duyvendak thought, that they were not purely Chinese work but were based on the nautical charts of the Arabs;¹ and Pelliot was convinced that they had an Arab nautical chart as a prototype;² but he gave no reasons, and later scholars have not been able to find any; we have no Arab portulan with which they may be compared; and the representation of the coast as running from right to left is an ancient device; it was employed by the author of the so-called Peutinger Table in the second half of the fourth century;³ Matthew Paris used the 'strip' form in his maps of about 1250;⁴ and it has been in regular use on route-maps until the present day, as witness the strip-maps of the Thames or the Rhine.⁵ In the absence of evidence to the contrary one believes that it was an independent invention of the Chinese; and in 1320 Chu Ssu-pen had already shown the sea-routes from Fukien to Manchuria as paths running horizontally from left to right.⁶

DATE

To what date may the contents of the map be referred? It is difficult to fix the date within a decade; the earliest year would be 1415, when Cheng Ho for the first time sailed beyond India to Hormuz; and the latest year would be 1433, when Cheng Ho returned from his last expedition. It is possible that in 1415 the Chinese contacted navigators who were acquainted with the Red Sea and East Africa, but there is no evidence that at this time the Chinese had any intention of sailing to those parts. Indeed, the avowed object of the fifth expedition (1417-19) was merely to take back to their own countries the ambassadors from nineteen kingdoms who had arrived on 19 November 1416. Ships of this expedition went to Aden and down the East African coast as far as Malindi, and it seems probable that the Chinese cartographers then collected the data which they later incorporated in existing maps, and that the Mao K'un Map as we have it was prepared as an aid to the navigators about to start on the sixth expedition of 1421-2, but perhaps contains additions inserted during the course of that expedition, and it therefore seems likely that the date was 'about 1422'.

One other point needs to be mentioned, however; the plan of Nanking in the Mao K'un Map marks a 'Ching hai ssu', 'Tranquil Seas temple', and this would appear to be the Ching hai ssu established by Cheng Ho in 1409;⁷

¹ Duyvendak, *Ma Huan*, p. 22.

² Pelliot, 'Voyages', p. 268.

³ A road-map of the Roman world, giving mileages.

⁴ R. Vaughan, *Matthew Paris* (Cambridge, 1958), p. 244; the itinerary from Dover to Newcastle, 'runs north-south'.

⁵ See Needham, vol. III, p. 561; Wheatley, *Khersonese*, p. 93.

⁶ See Fuchs, pl. 37-8 (not changed in the revision of 1555).

⁷ Duyvendak, 'Dates', p. 369, n. 1.

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but Hsiang Ta states that the Ching hai ssu of the map was established in 1425,¹ and if this was the case, the map must be referred to Cheng Ho's last voyage of 1431-3.

AIDS

Portions of the map have already been made the subjects of special study; in 1885-6 the greater part of the *Wu-pei chih* version was reproduced by Phillips, who satisfactorily identified one hundred and seven out of the one hundred and sixty-six names which he mentioned;² in 1909 Blagden satisfactorily identified sixteen of the fifty-one names in the Malayan region;³ in 1914 a few identifications were made by Gerini;⁴ in 1933 a number of references to the map were made by Duyvendak and Pelliot;⁵ in 1937 Mills sought to identify a further thirty-five names in the Malayan region;⁶ in 1942 Mulder reproduced the 'China' portion of the map, made some interesting observations, and satisfactorily identified sixty-seven of the seventy names which he listed;⁷ in 1959 Needham described and commented on the map;⁸ in 1961 Wheatley examined the identifications in the Malayan region;⁹ and in the same year Hsiang Ta published his Chinese book in which he reproduced the whole map on a small scale, and satisfactorily explained two hundred and seventy-six of the five hundred and thirteen names and legends which he quoted.¹⁰

The editor has derived great assistance from these studies. He has also consulted a number of authorities which have already been quoted, namely, the British Admiralty *Pilots* and charts, Ayyar, Beames (as to Bengal), Chang Hsieh, Cheng Jo-tseng, Cortesão (on Pires), Dames (on Barbosa), Ferrand, *Textes* and *Instructions* (on the *Muhit*), Gibb (on Ibn Battuta), Hsiang Ta, Hsü Yü-hu, Huang Sheng-tseng, Lü P'an and Lu Ch'eng-en,

¹ Hsiang Ta, *Cheng Ho*, p. 33. Phillips thought that the map should be ascribed to the fourteenth century; the editor has found only one indication of this, namely, the name Ch'ung ming chou, in which *chou* might mean 'Department', whereas Ch'ung ming ceased to be a *chou* in 1369; but it is probable that *chou* here means 'islet'.

² G. Phillips, 'The Seaports of India and Ceylon', *Journal of the China Branch of the Royal Asiatic Society*, vol. xx (1885), pp. 209-26; vol. xxi (1886), pp. 30-42.

³ C. O. Blagden, 'Notes on Early Malay History', *Journal of the Straits Branch of the Royal Asiatic Society*, no. 53 (1909), p. 153.

⁴ Gerini, pp. 425, 607, 691.

⁵ Duyvendak, *Ma Huan*, pp. 17-22; Pelliot, 'Voyages', pp. 289, n. 1 from p. 288, 298, 299, 310, 351, 373, n. 2, 374, nn. 5, 6, 7, and 378; Pelliot, 'Notes', pp. 287, n. 3, and 314.

⁶ J. V. Mills, 'Malaya in the Wu-Pei-Chih Charts', *Journal of the Malayan Branch of the Royal Asiatic Society*, vol. xv, pt. 3 (1937), pp. 1-48.

⁷ W. Z. Mulder, 'The "Wu Pei Chih" Charts', *T'oung Pao*, vol. xxxvii, no. 1 (1942), pp. 1-14.

⁸ Needham, vol. iii (1959), pp. 559-61.

⁹ Wheatley, *Khersonese*, pp. 91-103, 113.

¹⁰ Hsiang Ta, *Cheng Ho hang-hai t'u*, 'Map of Cheng Ho's Sea-Voyages' (Peking, 1961).

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Mao Yüan-i (stellar diagrams), 'Shun-feng', and Yule and Burnell. In addition he has examined a number of other sources, that is, Ch'en Hung-mou, Ch'en I, Dah Chung atlas, Gaillard, Guillain, Mills (as to Chinese coastal maps), Shan-chiang Fang tsao map, Teng Ch'i-hsien, and de Villard.¹

For helpful explanations he has searched in a thousand and one books and articles, from Fa Hsien² to Needham, during the period from 1912 when he first became interested in the subject of Sino-European contacts on reading Hirth's *China and the Roman Orient*; and a few of these have been quoted—Idrisi, Linschoten, Jourdain. Clues suddenly appear in most unexpected places; who could anticipate that Curzon's book on Persia would explain the mysterious place-name 'Sa-la-mo', in truth 'Salama', in a fifteenth century Chinese map? Two types of aid stand out as invaluable; on the one hand there are the Chinese sailing directions, though these contain errors and omissions which may be very puzzling. We sometimes find ourselves quite lost when they fail to help us; for instance, we can satisfactorily pursue the course round the Indo-Chinese peninsula and as far as Hsiao Heng (Poulo Wai), but when the sailing directions then direct the navigator across to the western shore of the Gulf of Thailand, we fail to identify Hsiang k'an and other places on the eastern shore of the Gulf. On the other hand there is the series of Admiralty *Pilots* and charts, from which it transpires that the old Chinese names are again making their appearance; thus, the island formerly known as Gutzlaff island is now called 'Ta ch'i', as in the fifteenth century. Unfortunately modern maps printed in China are at present unobtainable.

GENERAL DESCRIPTION

The map is contained in 40 pages (folios 2v to 22), the total length of the work from right to left being 220.4 inches, and the height from top to bottom being 8 inches.

On this long and narrow strip the divergent sea-routes are for the most part represented as more or less parallel, and the coast-line, irrespective of its true direction, is shown as one irregular line running from right to left.

¹ Ch'en Hung-mou, 'Tsui-hsin Chiang-su sheng ming-hsi ta ti-t'u', 'Latest Detailed Map of Kiangsu province' (Shanghai, 1932). Ch'en I, *Chin-ling ku-chun t'u k'ao*, 'Examination of the ancient and modern cartography of Chun-ling' (1516). Dah Chung Book Co., *Tsui-hsin Chung-kuo fen-sheng ti-t'u*, 'Latest Map of the Central Country divided into Provinces' (Hong Kong, 1958). L. Gaillard, *Plan de Nankin* (Shanghai, 1899). M. Guillain, *Voyage à la côte orientale d'Afrique* [in 1846-8] (Paris, n.d.). J. V. Mills, 'Chinese coastal maps', *Imago Mundi*, vol. xi (1954), pp. 151-68. Shan chuang fang tsao, 'Chiang-su Che-chiang wen-t'ung ming-hsi ti-t'u', 'A Comprehensive Map of Kiangsu and Chekiang' (Tokyo, 1926). Teng Ch'i-hsien, 'Nan-ching yu-t'u', 'Map of the Nanking region' (19th century). R. A. de Villard, *Map of the Yangtse-kiang* (Shanghai, 1895).

² Fa Hsien, *Fo-kuo chi*, 'Records of Buddhist Countries' (c. 420).

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To particularize, folios 2v and 3 depict the city of Nanking and environs; south-south-east is at the top; the naval yard occupies the point which separates the Ch'in huai river from the Yangtze river, and here commences the dotted line indicating the course followed by the 'treasure-ships' on their voyages to the Persian Gulf, the Red Sea, and East Africa.

Folios 3v-4v show the route down the Yangtze as far as the T'ai ts'ang region; and here south is generally at the top. Folios 5-12v trace the course from the T'ai ts'ang river through the off-shore islands as far as Wu chu chou ($112^{\circ} 50' E$, off the south coast of Canton province), where the ships left the coast to make Ta chou tao ($110^{\circ} 28' E$, off Hainan island), then crossed to Culao Re ($15^{\circ} 23' N$), and followed the coast of Vietnam to Cape Varella ($12^{\circ} 54' N$); in this portion of the map, west and then north-west and then west again is at the top; and at the T'ai ts'ang river begin the instructions written along the line of the course, stating the bearing to be followed and the time occupied in voyaging from one landmark to another.

Folios 12v-16v cover the routes from Cape Varella to northern Sumatra; here we have to differentiate the courses specified in the upper and lower portions of the map; the upper portion shows the coast of the mainland running in an irregular line from right to left, without indicating the peninsular form of Indo-China or Malaya; and, as will be seen later, ships following the main route left the coast at Point Ké Ga ($10^{\circ} 41' N$) and travelled by way of Grand Condore, Pulau Aur, and Pedra Branca, through Singapore and Malacca straits as far as the Aruah islands ($2^{\circ} 53' N$); at first west is at the top, but as the direction of the coast-line changes, so at later stages north-west, north, or north-east may be at the top; the lower portion depicts a more southerly, and subsidiary, route, running by way of Poulo Ceçir de Mer, the Catwick islands, Natuna islands, the west coast of Borneo, and the Kari-mundjawa islands to Java, thence westward along the north coast of Java till the route bifurcates, one track running through Bangka strait and along the east coast of Sumatra into Malacca strait, and the other track running through Sunda strait and along the west coast of Sumatra to about $1^{\circ} 38' N$ (Tapanuli bay); in the beginning north is at the top, but at later stages it may be west or north-east.

Folios 17-18 represent a further compression of the geographical configuration, and we must distinguish three portions of the map. In the top portion the coast of the mainland is continued to the mouths of the Irrawaddy in Burma; at first east, and then north is at the top; there is no track, and no instructions for the voyage to Bengal. In the central portion are shown the east and north coasts of Sumatra from the Brothers (c. $3^{\circ} 23' N$), to Poulo Weh ($5^{\circ} 54' N$); at first north and then north-east is at the top; and the ship's

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track is indicated, with sailing instructions, for both the eastward and the westward voyage from Kuala Pasai ($97^{\circ} 13' E$). In the lower portion, the west coast of Sumatra runs as far as the north-west corner of the island, and on folio 17 is drawn a long and non-existent island running parallel with the coast. Thus the three tracks (the coastal route, the Java–East Sumatra route, and the Java–West Sumatra route) approach each other roughly in the latitude of northern Sumatra.¹

Folios 18v–19 can once more be viewed in two portions. In the upper portion the coast of the mainland continues as far as Bengal; at first east and then north is at the top. The lower portion traces the main sea-route from Poulo Rondo ($95^{\circ} 07' E$) to Ceylon; north is at the top; and instructions are given; Haddummati atoll (of the Maldive group) makes an unwarranted appearance to the south-east of Ceylon; and stellar altitudes are added for the first time. The subsidiary route now lies on the north side of the Chinese main route to Ceylon.

Folios 19v–20 represent an enormous compression of the chart; and, as will be seen from folio 19v reproduced as Fig. 5 in this volume (p. 290), the picture must be read in five portions. The first, upper, portion shows the delta of the Ganga river (lacking in folio 19v); north is at the top. In the second portion the east coast of India is depicted as running horizontally from right to left, with south-east at the top; a track is drawn but no sailing instructions are given; and the island of Ceylon, correctly orientated, stands off the southern point of India. In the third portion the west coast of India is represented as running parallel with the east coast, as far as Mount Delly ($12^{\circ} 02' N$); north-east is at the top; and there are many tracks and many sailing instructions. In the fourth portion are shown islands of the Maldive and Laccadive groups as far north as Androth island ($10^{\circ} 49' N$); north-east is at the top; and an instruction gives the bearing and the time occupied in the voyage to Mogadishu. In the fifth, lowest, portion the coast of Africa runs from right to left, roughly from the latitude of Mozambique ($15^{\circ} 03' S$) to Ras Asir ($11^{\circ} 50' N$); south-east is at the top; no ship's track is shown, but there are sailing instructions of a general nature. The subsidiary route from Bengal now runs down to join the main route near Ceylon, and thence, proceeding to the Maldive and Laccadive islands, Arabia, and East Africa, continues to lie on the south side of the Chinese main route to Hormuz.

Folios 20v–21v can be read in three portions; in the upper portion the coast of the mainland is continued from Mangalore ($12^{\circ} 50' N$) in India to Kuhistak

¹ The economic prosperity of countries situated near the line Atjeh–Kedah may be accounted for by the fact that hereabouts six sea-routes converged; three to the south (West Sumatra, Palembang–Java, and Singapore strait), and three to the north (Thai–Burma coast, Nicobars–Bengal, and Nicobars–Ceylon).

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($57^{\circ} 01' E$) in Persia; north-east or north is at the top; and there are many tracks and sailing instructions; in the central portion the island of Socotra ($12^{\circ} 30' N$) is drawn, and the south and east coasts of Arabia from Aden ($12^{\circ} 47' N$) to Fahl islet ($23^{\circ} 41' N$); at first south-east and then north-east is at the top; a ship's track is marked and there are sailing instructions of a general nature; the lower portion shows the west coast of Arabia; north-east is at the top; and track and instructions are lacking.

The last folio, 22, depicts the entrance to the Persian Gulf, the principal features being the Masandam peninsula and Jazireh Hormuz ($27^{\circ} 03' N$); east, for the main part, is at the top; there are some ship's tracks and sailing instructions.

Estuaries are represented by deep V-shaped indentations, and the map is generously provided with sketches of hills and mountains. The extreme points shown on the map are, in the east Nanking, and in the west Hormuz in Persia, Luhaiya in Arabia, and in East Africa 'Ma-lin-ti', which may here denote Mozambique.

The 40 pages of the map may be apportioned roughly between the Chinese world (18 pages), the Indo-Chinese world (7 pages), the Malaysian world (11 pages), the Indian world (7 pages), and the Arab world (6 pages); but there is some overlapping. Apart from the title and the sailing directions, the map contains 577 entries in Chinese characters; 499 are place-names, 34 are star-heights, and 44 are designations of temples, offices, local products, and such like; the editor thinks that 423, or 84 per cent, of the places can be located with reasonable certainty.

SPECIAL COMMENTS

Orientation and scale

It has been seen that a vertical line drawn from the bottom to the top of a page in the map may point to north, south, east, or west; and it may point to several different directions on the same page, as is evident in the case of the page (f. 19v) which contains the representation of Ceylon (Fig. 5); locating salient points as accurately as we can, we find that in the case of Ceylon the 'north' of the map is at 3° , in the case of southern India it is at 310° , in the case of the Laccadive and Maldivé islands it is at 305° , and in the case of the east African coast it is at 272° .

In the tracing of folio 19v it is shown how the geographical picture can conveniently be divided into 'maplets'. Errors in orientation necessarily involve variations of scale, and this variation is evident on nearly every page of the map; a curious example occurs on folios 19, 19v, and 20, which purport to show, in the upper portion of the pages, the coast-line from Chitta-

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gong, and in the lower portion the coast-line from Great Basses ridge, to the western end of the Ganga delta; here the 'strip' system fails and is abandoned; for, while folio 19 marks Chittagong and Bengal, folio 19v shows no coast-line of Bengal; this hiatus is rendered necessary by the fact that the map represents the east coast of India to run from east to west instead of from south-west to north-east, so that the northern coast of the Bay of Bengal is grotesquely elongated. A trace along the coast-line of Bengal on folios 19 and 20 measures about 7.5 inches, covering a distance of some 250 miles, with an average of 33 miles to 1 inch; and a trace along the coasts of Ceylon and India from Great Basses ridge to the western boundary of Bengal measures about 13.2 inches, covering a distance of some 1290 miles, with an average of 97 miles to 1 inch.

The whole course of the voyage from 'Treasure-ship yard' at Nanking, by way of Java, to Hormuz, 7,465 miles, extends over some 218 inches of the map, with an average of 34 miles to 1 inch; the largest scale is shown in the representation of the Yangtze from Nanking to Wu sung, 26.8 inches to cover 197 miles, or 7.3 miles to 1 inch; and the smallest scale appears in the delineation of the East African coast from Mozambique to Brava, 4.6 inches to cover 990 miles, or 215 miles to 1 inch.¹ The frequent variations of orientation and scale convert the map into a patchwork of maplets, each of which has its own orientation and scale.

Sailing Directions

The map is liberally supplied with dotted lines indicating sea-routes; there may be a single line, as down the China coast from T'ai ts'ang to Wen chou; or there may be as many as eight lines, as where ships from the direction of India and Africa converge on the entrance to the Persian Gulf.

The main route from China, after passing through Singapore strait to Ceylon, ran along the west coast of India, and across to the Persian Gulf and Hormuz. Subsidiary routes ran, among other places, to the Saigon river, to the Gulf of Thailand, down the east coast of the Malay peninsula, to eastern Java, along both sides of Sumatra, from Ceylon to Bengal and down the east coast of India, from Ceylon and India to the Maldive and Laccadive islands, from Male island to Mogadishu, and from Hormuz to Aden and East Africa. No route is shown along the south coast of Java, or along the coast of the

¹ The editor provisionally identifies 'Ma-lin-ti' with Mozambique (15° 03' S); it is written south of 'Ko-ta-kan', which is almost certainly Quitangonha island in Conducia bay; but it does not seem reasonable to suppose that the Chinese made their terminus at the latter place; and they would in all probability have sailed on for another 10 miles to Mozambique; on the other hand, it does not seem safe to identify 'Ma-lin-ti' with any place south of Mozambique, though the Chinese may have gone on for another 300 miles to Sofala (20° 13' S).

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mainland between Bukit Jugra and Bengal. Except for a lacuna between Cape Varella and Point Ké Ga, sailing instructions to the mariner are written along the course of the main route from T'ai ts'ang to Ceylon.

The most elaborate instructions are those which concern the China coast; thus, for the route between the Yangtze and the Min rivers instructions are given for the voyage in both directions, and, in addition, for the voyage from Pei chi shan ($27^{\circ} 37' N$) to Huang ch'i shan (in the Min estuary) a second route is described; again, while instructions are given for the homeward voyage from Ta chou tao (off Hainan island) to Huang Ch'i shan, additional instructions are given for the outward voyage from Huang ch'i shan to Niu shan ($25^{\circ} 25' N$). For the route between Kuala Pasai (in Sumatra) and Ta chou tao instructions are given for the homeward voyage only; and for the route between Kuala Pasai and Ceylon instructions are given for the outward voyage only. For the voyage on the main route from Ceylon to Hormuz, the instructions are defective; the only instruction in the usual form relates to the voyage from Mangalore ($12^{\circ} 50' N$) in India to Kalhat ($22^{\circ} 42' N$) in Arabia.

There are a number of instructions for voyages from islands of the Maldivé and Laccadive groups to Mogadishu in Africa and to various places in Ceylon and India. There are instructions for voyages from Mangalore, Anjidiv island, and Goa to Kalhat. Finally, there are rudimentary and inadequate instructions for a voyage along the east coast of Africa from the equator to a latitude of $25^{\circ} 11' N$ off the coast of Arabia. The instructions normally contain the information which is of prime importance to the navigator, namely, what course he is to steer, and when he may expect to reach his next land-mark; the information is usually embodied in the formula 'from *A*, steer x° ; after *y* watches, the ship reaches *B*'.

The composer of the map employed the usual Chinese compass giving the cyclical characters for the 24 principal points, with divisions of 15° ; and, as was usual, he combined two contiguous points to indicate the point intermediate between them; thus, ' $0^{\circ}-15^{\circ}$ ' meant $7\frac{1}{2}^{\circ}$.¹ When indicating one of the 24 principal points, he once and only once followed the usual practice of prefixing the character *tan*, 'single' (Giles, no. 10,600) conveying the idea 'due x° ' or 'exactly x° '; this one instance is to be found on folio 11 v where he stated that the course to be followed on the voyage from Culao Re to

¹ In 1942 Mulder put forward the attractive hypothesis that ' $0^{\circ}-15^{\circ}$ ' meant 10° , and that ' $15^{\circ}-0^{\circ}$ ' meant 5° ; but no evidence is adduced to support the hypothesis; it contradicts the conclusions of de Saussure and Ferrand (G. Ferrand, *Instructions nautiques et routiers arabes et portugais des XV^e et XVI^e siècles* (Paris, vol. III, 1928) [contains extracts from Prinsep and de Saussure]); and is itself contradicted by negative and positive evidence, including 10 express statements in 'Shun-feng', f. 10, and Lü P'an and Lu Ch'eng-en, ff. 12 v, 14 v-18. The problem cannot be adequately discussed in a footnote.

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Ta chou tao was '15°-30° and single 15°'; in all other cases he prefixed the character *tan*, 'red' (Giles, no. 10,618); but since he called Berhala island (in Malacca strait) Tan hsü, 'Single island', and since Shih Yung-t'u called the same island Tan hsü, 'Red island', it may be concluded that the composer of the map regarded the characters *tan*, 'single', and *tan*, 'red', as interchangeable.¹

The instructions, it may be noted, tell the navigator the direction in which he should steer; but it does not follow that his destination lay exactly in that direction, since wind and tide might divert the ship. Best has emphasized that in the vicinity of the Karimun islands where three tides meet, a slow-moving vessel would be carried many miles out of its proper course, and Best himself often found it necessary to steer more than 20° on one side or the other of his proper course when sailing in those waters.² When we can certainly locate the places named in the instructions, we can calculate the speed of the ship, since we know that the period of 1 watch was equivalent to 2.4 hours and we can ascertain the distances from a modern chart. When we can locate the place of departure, the instruction usually enables us to locate the place which marks the end of the stage; and when we can certainly locate the departure-point in one instruction and the arrival-point in the following instruction, we can usually locate the intermediate place; thus, from Malacca it took 5 watches to reach 'Shoot Arrow mountain' and thence it took 3 watches to reach Pulau Pisang; hence we can confidently identify 'Shoot Arrow mountain' with Bukit Banang which is 51 sea-miles from the Malacca river and 28 sea-miles from Pulau Pisang.

The fastest voyage recorded in the map is that from Ta chou tao to Ta hsing chien; the map gives the number of watches as 15; but comparison with other sailing directions shows that this figure must be raised to 25; the distance is 346 miles, and the speed would therefore be 13.8 miles in 1 watch or 5.75 knots.

Different opinions have been expressed regarding the adequacy of the compass-bearings given in the instructions; along the China coast, some of the courses were thought by Mulder to be amazingly accurate; and in Malacca strait Best found that the 'offings' or distances out from Cape Rachado, Water islands, and Pulau Pisang fit in remarkably well; on the other hand Wheatley considered that the instructions for negotiating the narrow passage between North and South Sands are grossly inadequate. Some instructions are certainly incorrect.

¹ The three books which contain sailing instructions ('Shun-feng', Chang Hsieh, and Lü P'an and Lu Ch'eng-en) prefix the character *tan*, 'single', in 686 instances; they never prefix the character *tan*, 'red'. Mulder (p. 6), however, thought that 'red' (vermilion) referred to a mark painted on the compass.

² Mills, 'Wu-pei chih', p. 24.

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Stellar altitudes

The map gives the stellar altitudes for 34 places, all in India or countries west of India; namely, 6 in the Maldive-Laccadive groups, 14 on the west coast of India, 1 in Baluchistan, 7 on the coasts of Arabia, and 6 on the east coast of Africa. To find the latitude we now add $3^{\circ} 30'$ to the altitude of the Pole-Star, because, since the fifteenth century, the Pole-Star has changed its position in relation to true north. In the case of 6 places, namely Kalpeni atoll, Boria headland (6 fingers), Mogadishu, Brava, Mombasa, and Mafia island, the figures disclose an error varying from about 4° to 11° , and we can exclude them from further consideration. The same applies to 4 places which cannot be pinpointed with sufficient exactness, namely, Chia-chia liu (Sacrifice rock ?), Kej-Makran, the Gulf of Masira, and A-hu-na (Ras al Madraka ?). Concerning the remaining 24 places, it transpires that

(a) in 21 cases the reading is smaller than it should be, and in 3 cases it is greater than it should be;

(b) in most cases the error ranges from $1^{\circ} 01'$ to $1^{\circ} 40'$;

(c) in 8 cases the error is less than 1° ;

(d) in 2 cases the error is more than 2° ;

(e) the most accurate observation is that taken at Male island, where the error is $8'$;

(f) the least accurate observation is that taken at Chaul, where the error is $2^{\circ} 12'$.

In some instances the Chinese observation is more accurate than the Arab; thus, in the case of Male island ($4^{\circ} 10' N$) the *Muhit* gives a figure for 'Mahall', which, when corrected, is equivalent to $3^{\circ} 30' N$; hence there is an error of $40'$, whereas the figure for the Chinese observation ($4^{\circ} 18' N$) involves an error of only $8'$. When one is certain about identifications (as for Aden or Calicut), the addition of the stellar altitude is of no importance; but in most cases it is helpful to have confirmatory evidence, for example, in the case of A-che-tiao (Anjidiv island) or Lo-fa (Luhaiya); and in two cases the stellar altitudes provide essential information, for without them it would not have been possible to locate Ssu-lung liu and Sha-la liu, which are to be identified with Haddummati atoll and Mulaku atoll, respectively.

It seems reasonable to expect that the most accurate observations would be made on the west coast of India, since (a) they would be made by Arabs, Indians, and Chinese, (b) they would be in frequent use, (c) they would form a series, each member of which could be checked against the others, (d) they would be made on land. There are five places in India where the altitude of Polaris is the same in the Mao K'un Map and in the *Muhit*; but it seems safer to exclude Cambay, where the sea is known to have receded.

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Attempting to measure from the exact spot in respect of which the observation is likely to have been made, we get the following results:

Place	Altitude of Polaris	Equivalent	Actual situation	Difference
The centre of Mahim town	9 fingers	14° 27' 51"	19° 37' 46"	5° 09' 55"
The highest point of Ras Boria	8 fingers	12° 51' 25"	17° 23' 47"	4° 32' 22"
The summit of Anjidiv island	6 fingers	9° 38' 34"	14° 45' 23"	5° 06' 49"
The middle of the entrance to the Netravati river at Mangalore	5 fingers	8° 02' 08"	12° 50' 28"	4° 48' 20"

The average difference is 4° 54' 21". This is greater by 1° 24' than the usually accepted polar distance of 3° 30'; but the editor is not competent to suggest an explanation of this difference.

GENERAL COMMENTS

The map is a cartogram which performs at one and the same time the function of charts and sailing directions; it provides a pocket-size directory, specifying the courses to be followed, the principal land-marks, the time taken in sailing between them, most of the points along the coasts, and other matters which could be of importance to sailors, on the voyages from China to Persia, Arabia, and East Africa. Thus for the main voyage in view, that from Nanking to Hormuz, it might well be considered more convenient for the mediaeval sailor than the modern apparatus of directories, charts, parallel rulers, and dividers, which are necessary to ascertain direction, distance, and other desirable information.

While the Indo-Chinese peninsula and the Malay peninsula are flattened out, the Indian peninsula is represented in its pear-shaped form. In several pages of the map the geographical configuration is violently compressed so that coasts separated by great distances may figure on the same page; this appears in an extreme form on folio 20 which shows the Ganga delta, the east coast of India, the west coast of India, the Laccadive islands, and the east coast of Africa. Marginal notes sometimes provide additional explanations; for instance, 'Mu-lu-wang' is given as an alternative rendering for 'Shih-la-wa' (properly, Pu-la-wa, Brava), and 'Mo-erh Kan-pieh' for 'Mu-erh-li Ha-pi-erh' (Morro-Khebir); hence other 'marginal notes' may, and in the editor's opinion do, occur in other parts of the map.

The map indicates the approximate position of certain places bearing obsolete names, such as Langkasuka, Tumasik, and La'sa. It shows that the main route from China to the west lay through Singapore strait. The

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principal points on this route have already been specified,¹ and it only needs to be mentioned that from Bukit Jugra the Chinese ships went over to the Sumatran side of Malacca strait, whereas the Arab ships followed the Malayan coast as far as Pulau Butang ($6^{\circ} 32' N$) before crossing the sea to the west. The map shows that the Chinese knew most of the important land-marks and places on the coasts; and in some cases their knowledge of detail was astonishingly accurate; thus, the curious configuration of the Deli estuary bears a striking resemblance to the map in Anderson's *Mission to the East Coast of Sumatra* (1826), and the delineation of the Pa k'ai Chiang, 'Eight Openings anchorage', where the Song Soirap joins the Song Vaice ($10^{\circ} 29' N$) on the way up-river to Saigon, might almost be a tracing from British Admiralty chart 3986.

This is the earliest Chinese map to give an adequate representation of southern Asia, and the representation extends as far as Persia, Arabia, and East Africa.² The cartogram constitutes a real mariner's chart, and must have been of enormous value to Chinese navigators, but Mulder has pointed out that it does not give directions for navigating in and out of harbours, and he thought that probably it was usual to employ a pilot for that purpose.

Despite its merits, the map suffers from serious defects of commission and omission. It is distorted by extreme schematism. It includes features which have no real existence; for example, the long island off the west coast of Sumatra, or a hill in the flat extremity of Johor between Singapore and Pulau Pisang. In numerous instances, places are located in the wrong position; thus, Ssu-lung (Isdu), Haddummati atoll, appears off the south-eastern corner of Ceylon, over 500 miles from its true situation; the map represents that the navigator comes abreast of Pulau Pinang ($5^{\circ} 23' N$), before he reaches the Deli estuary ($3^{\circ} 47' N$); there is a wild jumble of islands to the west of Grand Condore, so that Ta Heng (Poulo Panjang, $103^{\circ} 28' E$) is shown to lie further east than Hsiao K'un-lun (Les Frères, The Brothers, $106^{\circ} 07' E$); so too, Kuan t'ang (Chi hsing chiao, Outer Min reef) is placed north-east instead of north-west, of Tung sha (Hsi ch'uan tao, White Dogs). Islands sometimes appear on the mainland, as is the case with the Daimaniyat islands. A hill, such as Bukit Jugra, may be called an 'island'.

The map ignores or misrepresents certain salient coastal features; thus, the peninsular form of Malaya is not shown, and the entrance to the Gulf of Thailand (200 miles wide) is represented as being narrower than the entrance to Qui Nhon harbour ($\frac{1}{4}$ mile wide). Some of the navigational directions are

¹ See above, Introduction 1(K), Cheng Ho's routes.

² Previous maps had done nothing better than show the trace of the Mekong and Salween (*Hua-i* map of 1137, see above, p. 237). The earlier world-maps of Li Tse-min (c. 1330) and Ch'ing Chun (c. 1380) have been lost; but copies of them are now being made the subject of study.

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inadequate, or incorrect. Several of the stellar altitudes appear to be incorrect. A number of misprints occur; for instance, Shih-la-wa for Pu-la-wa (Brava). There are some startling omissions; thus, (a) Kilwa, which flourished from c. 1285 till 1505 and was the principal place on the east coast of Africa in the time of Ibn Battuta; (b) Nakhon (Nakhon si Thammarat), an important Thai centre on the east coast of the Malay peninsula; we also look in vain for certain other names which are mentioned in previous works, for instance, the important Fo-lo-an (Badlun, Phathalung), described in books of the twelfth, thirteenth, and fourteenth centuries.

The map embodies other curious features to which the geographer might take exception; thus, the configuration of Java is grotesque; but we have to envisage the possibility that the map was intended primarily to illustrate the main route from China to the west, in which case extraneous matter ought to be regarded as mere surplusage; but some of this surplusage is of great importance. For instance, there is reason for thinking that no other Chinese map showing the west coast of Sumatra was composed before the nineteenth century. The errors are so serious as to suggest that the map as we have it was an unfinished draft; and it may have survived precisely because it was regarded as a defective document, which was thrown into the waste-paper basket.

Notwithstanding its imperfections, this is a remarkable map, of which the value has now been widely recognized; and it deserves monographic treatment. Even in respect of the China coast it is more interesting than other Chinese maps, and the representation of the Yangtze furnishes some details which are not in the British Admiralty chart. The map provides a most fascinating study: for the historical geographer it constitutes a pearl of great price; in connection with the stellar diagrams also published by Mao Yüan-i it deserves the attention of the astronomer. The historian may wish to explain why it contains no reference to Nakhon, Phathalung, or Kilwa, and it cannot but whet the appetite of the polyglot, for there is reason to believe that it contains translations of foreign words. Who will tell us what the Chinese meant when they referred to the Daimaniyat islands as Ya shu tsai chi hsü, or Hsi shu tsai mo hsü, or Ya la shih chi hsü?

It is natural to enquire how the map compares with European maps of the same period. The radical difference in substance between Chinese maps and European maps lies in the fact that the former become less complete and exact as they progress westward, and the latter as they progress eastward. We expect each of them to be superior in their own homeland. In respect of the half-way region, that is, the coasts of eastern Africa and Arabia, this Chinese map is immeasurably superior; the European mappers knew little specific about this region, for in 1422 the Portuguese had not progressed as far south

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as Cape Bojador (26° N) on the west coast of Africa, and were still 1,500 miles from the equator, while the Arab cartographers made the gross blunder of imagining that from Ras Asir (Capo Guardafui) the coast of Africa extended due east to Mombasa and thence ran in an easterly direction to the vicinity of Java. As regards form the Mao K'un Map, properly interpreted, is superior to the Catalan Map of 1375 and Fra Mauro's map of 1459; but it is inferior to the contemporary Mediterranean 'Portulan' charts, which began to appear about 1300; these, however, applied only to a limited area in home waters.

INTERPRETATION, EXPLANATION, AND IDENTIFICATION

Having made these preliminary comments, we can proceed to the main purpose of this appendix, namely, to interpret the map, to explain the legends and place-names, and to identify the places. The map has recently been reproduced by Hsiang Ta in his book *Cheng Ho hang-hai t'u*, 'Map of Cheng Ho's Sea-Voyages', and an example of his book may be found in the Oriental Institute at Oxford, the Faculty of Oriental Studies at Cambridge, and the School of Oriental and African Studies in London; hence it is not considered necessary to print the Chinese characters.

In the light of the further evidence now available, the editor is compelled to modify some of the suggestions made in 1937.¹ He cannot, in the present short essay, give the reasons for his identifications or set out the grounds on which he feels driven to disagree with the opinions of previous writers. Though much progress has been made in our knowledge of Chinese overseas relations since Phillips first drew attention to this map in 1885, there still remain many points which we do not understand and 76 places which cannot be located with confidence. Sometimes it is possible to identify the place but not to explain the name (the Daimaniyat islands called Ya shu tsai chi hsü); and sometimes it is possible to explain the name (Chin hsü, 'Gold island') but not to identify the place. Sometimes it is impossible to understand an entry at all; what is 'Che chi la ha tse la'? and what is the curious object depicted near the name 'Ma-lin-ti' in Africa—is it a hut, or a plaque, or a beehive, or a Chianti bottle abandoned by Marco Polo?

There are many reasons for our lack of understanding:

- (a) Names may be translations of words in foreign languages with which we are not acquainted (Chiu chou translates Malay Pulau Sembilan);
- (b) Names may be obsolete (K'o-tieh-mi, Cosmi);
- (c) Names may be purely Chinese names (Ch'ien fo ch'i, Thousand Buddhas stream), which give no clue to the identity;
- (d) Names may be written in the wrong position, or we may be misled

¹ Mills, 'Wu-pei chih', pp. 1-48.

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by errors of orientation or size (Haddummati atoll off the south-east corner of Ceylon);

(e) Names may be difficult to recognize because the transliterations are inexact (Chien-pu-chai for Kan-po-chih, Cambodia);

(f) Names may be misnomers (Bukit Jugra called an island);

(g) The Chinese characters may be wrong;

(h) There may be errors in the sailing directions;

(i) We may be unable to recognize a clue contained in the name (Chi lung shan, Fowl-coop mountain);

(j) Physical features may have changed (Tuan yao islet near Nanking no longer exists);

(k) The sounds of the Chinese characters may have changed (Ch'ieh represents *ga* or *ka*).

The chief difficulty lies in ascertaining the values of the sounds to be attached to the Chinese characters; and this is highly important since the majority of the place-names beyond China are transliterations. There seems no hope of ascertaining the truth when the difficulty is framed in an extreme form, 'we do not know the Chinese sounds or the mediaeval names'. Fortunately this generalization can be modified; our understanding of Chinese transliterations has greatly increased since the early days of Bretschneider, Mayers, Phillips, and Groeneveldt. Much progress has been made with the study of evidence which from time to time comes to light, for instance, foreign books like the *Nagarakertagama*, foreign vocabularies,¹ and Buddhist terms whose sound was known; Schlegel, Maspero, and Karlgren have written at length on Chinese phonology, and Forrest concludes that 'the standard Chinese dialect was already in the fifteenth century pronounced substantially as it is today'.² To give an example; the name of the Javanese king Wu yüan lao wang chieh, which Groeneveldt thought was 'Bogindo Bong-kit', is now rendered by Coedès as 'Bhre Wengker'.³

To come to the Mao K'un Map; most of the Chinese sounds are now intelligible, but it is necessary to discard the suggestion that the only medium of transliteration was the Amoy colloquial. This dialect cannot have been used in the rendering 'Men-fei-ch'ih', the name given to Mafia island, since the sound of the second character in the Amoy colloquial is *pui*. Most of the names can be understood in the northern Chinese language, but it is certain that the Amoy colloquial (*pin-nng*) was used in the rendering 'Pin-lang', Pinang, and Cantonese (*ket*) in the rendering 'Ma-shih-chi', Muscat, since

¹ Especially Malay, 'a particularly static language in the matter of phonology' (R. A. D. Forrest, *The Chinese Language* (London, 1948), p. 191).

² Forrest, p. 192.

³ Groeneveldt, p. 161; Coedès, *États*, p. 432.

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the final *z* was lost in northern China by the thirteenth century. A few expressions still defy explanation; for instance, it is impossible to understand *Ya shu tsai chi* (perhaps Persian or Arabic), the name given to the Daimaniyat islands, or *La-ssu Na-ha* (perhaps Swahili or Arabic) on the east coast of Africa. It now appears that a name may represent the sound used in any part of China; thus, in Johor many of the Chinese names represent the sounds used in the 'Teochiu' dialect of Swatow. It has been found that in the Malayan peninsula section of the map, out of 40 cases in which the origin of the Chinese name could be traced with reasonable certainty, in 17 cases the Chinese name was a transliteration of a Malay name and in 6 cases a translation of a Malay name; it is reasonable to suppose that the map contains translations from other foreign languages, but unfortunately the editor has no knowledge of such languages.

Of Chinese renderings in general it seems fair to say (*a*) that the Chinese made a sincere attempt to reproduce the sounds of foreign names with accuracy; and (*b*) that there are many instances of inaccuracy; this inaccuracy arose either because the Chinese pronounced words carelessly, as when the seamen mispronounced 'Kan-p'o-che' (Cambodia) as 'Chien-pu-chai',¹ or because they deliberately distorted foreign names in such a way as to give the sounds a meaning in the Chinese language; thus, the Chinese could say, and often did say, 'Kua-la' to represent the sound of the Malay word 'Kuala', but when reproducing the sounds of the Malay place-name 'Kuala Lumpur', they intentionally called it, in Cantonese, 'Ket Lung-po', which meant 'Lucky Dragon bank'.² Even now some pronunciations are difficult to follow; thus, a Javanese may pronounce the name Java as though it were spelled 'Chore-wore', or a Malay pronounce the word *ada*, 'to be', as though it were spelled 'uddore'; and a Chinese may say 'Pelembang' for 'Penembang' or 'habit' for 'habis'.

In the hope that it may assist those who will make a further study of the map, the editor notes some of the varying sounds which may be represented by the modern Pekingese consonants.

CH	Ch (Chi-lan, Chidambaram)	F	(Fou-chia, Fuga)
	Dj, J (Chan-pei, Djambi)	H	(Lo-fa, Luhaiya)
	G (Chiao-lan, Gelam)	P	(Fo-lin-pang, Palembang)
	K (Chi-ta, Kedah)	V	(Fo-shih, Vijaya)
	T (Chu-man, Tuban)	H	G (Heng, Ganga)
F	B (Pa-lin-feng, Palembang)	H	(Ha-fu-ni, Hafun)

¹ Chang Hsieh, p. 120.

² For a spirited defence of Chinese accuracy see Damais (pp. 641-7), who considered that Chinese renderings of oriental words were as accurate as those of European and Arab travellers.

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	K	(Ho-ling, Kalinga)		Z	(Lü-sung, Luzon)
HS	H	(Hsieh-li, Hili)	SH	J	(Fo-shih, Vijaya)
	S	(Hsi-lan, Ceylon)		S	(Shun-t'a, Sunda)
J	J	(Jao-tung, Jaratan)	SSU	S	(Po-ssu, Persia)
K	G	(Kou-lan, Gelam)		Z	(Hu-lu-mo-ssu, Hormuz)
	K	(Kan-pa, Kampar)	T	D	(Ti-li, Delhi)
	P	(Ku-li-yu, Pulau)		S	(K'o-tieh-mi, Cosmi)
L	D	(Liu, Diu)		T	(Tu-pan, Tuban)
	L	(Lan-pang, Lampung)	TS	Ch	(Pan-tsu, Panchur)
	N	(Li-chin-wu, Negombo)		J	(Tsa-ko-te, Jaked)
	R	(Ya-la, Aru)		Z	(Tsu-fa-erh, Zufar)
M	B	(Mo-li, Bali)	W	B	(Wen-lai, Brunei)
	M	(Mo-ch'ieh, Mecca)		D	(Wen-wu-lou, Mindoro)
	N	(Ma-ha-yin, Mahim)		G	(Wu-sha-la-t'i, Gujarat)
N	D	(Na-pi-tan, Dapitan)		M	(Ti-wu, Timor)
	L	(Su-an, Sual)		O	(Wu-li-she, Orissa)
	M	(Chan, Cham)		P	(Tan-jung Wu-lo, Tandjung Pura)
	N	(Ni-pa-lo, Nepal)		U	(Wu-jan-ni, Ujjain)
	Ng	(I-ning, Ilin)		V	(Chao-wa, Java)
	R	(Ti-men, Timor)		W	(San-pa-wa, Sumbawa)
P	B	(Pang-ko-la, Bengal)	Y	A	(Ya-la, Aru)
	M	(Pa-tu-ma, Martaban)		G	(Ya-li, Galle)
	P	(Po-ssu, Persia)		I	(Yin-tu, India)
	V	(Po-lo-na-ssu, Varanisa)		Y	(Yen-mou-na, Yamuna)
R	R	(Tsu-fa-erh, Zufar)			
S	S	(Su-lu, Sulu)			

Several similar variations may be found in other languages, for instance, Martavan and Martaban, Zufar and Dhufar, Argiers and Algiers, Manganor and Mangalore, Fansur and Panchur, Gaud and Gaur, Cois and Pois, Hanfu and Kanfu, Lankin and Nanking, Madril and Madrid, Cascat and Kashgar, and even tapon for capon (Bowrey); but the curious use of *wu* to represent the sound *do* and *du* in Mindoro and Marinduque, respectively, raises the suspicion that the local name has changed.

Such variations make it difficult enough to identify Chinese transliterations, but, to make matters worse, the Chinese transliterators display two highly disconcerting habits. In the first place, they omit syllables; this may not be important when the syllables are in the middle or at the end of a word, thus we can recognize Kolikkotu in Kuli and Vijaya in Fo-ch'i (for Fo-ch'i-hu), but when they omit the first syllable they make the problem extremely difficult. But it has been possible to discover that K'un is an abbreviation for

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Liu-k'un (Lakhon, Nakhon, where the Malays also dropped the first syllable), and Pa-na is an abbreviation for Djapara. In the second place, they combine translation with transliteration; thus, in the name Lung tsai Sa-ch'i, Lung tsai (Dragonlet) is a translation of *naga* (Sanskrit *naga*, dragon) and Sa-ch'i is a transliteration of *Saki*, the whole name thus being a rendering of the name Nagasaki in Japan. Occasionally we come across a name in which both the above difficulties occur; thus, in K'un hsia ch'i (The lower streams of Lakhon) the first syllable is omitted and a transliteration is followed by a translation. We sometimes find it helpful when the Chinese texts give two different renderings of the same name; for instance, when we find the two forms Pa-na and Pao-lao-an, we suspect that the *n* and *l* in the second syllables represented the sound *r*, and the full name turns out to be Djapara.

'MAP

OF [THE ROUTES TAKEN BY] THE SHIPS WHICH START FROM
THE TREASURE-SHIP YARD, GO OUT INTO THE STREAM FROM
LUNG CHIANG BARRIER, AND TRAVEL DIRECT TO
THE VARIOUS FOREIGN COUNTRIES'

SECTION I. NANKING CITY AND ENVIRONS¹

Identifications

<i>Transliteration or translation</i>	<i>Explanation</i>
[Centre]	
Huang ch'eng, 'the Palace City'	Ming ku kung, 'the old Ming palace' ²
[South-west] ³	
Shui hsi ch'iao	(unidentified bridge) ⁴
Wu hsieh ch'iao	(unidentified bridge) ⁵
[West]	
Shih ch'eng ch'iao	Shih ch'eng bridge ⁶

¹ Ff. 2v-3. See Ch'en-i; Teng Ch'i-hsien; Gaillard; Shan Chiang fang tsao map; Ch'en Hung-mou; Dah Chung atlas; Hsiang Ta, *Cheng Ho*. This section contains 9 place-names; the editor thinks that 6 are identified with reasonable certainty.

² Hsiang Ta, *Cheng Ho*, p. 28.

³ South-south-east (approximately) is at the top. As a basis for determining the orientation, a line has been taken running in direction 107° from Shih tzu shan to Chung shan. The identifications commence in the top right-hand portion of the map and proceed clockwise.

⁴ Near the modern Shui hsi gate.

⁵ Near the modern Chiang tung gate?

⁶ Outside the modern Han hsi gate (Hsiang Ta, *Cheng Ho*, p. 15); marked in Teng Ch'i-hsien's map.

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T'ien fei kung, 'temple of the Celestial Spouse'	T'ien fei temple ¹
Ching hai ssu, 'Tranquil Seas temple'	Ching hai temple ²
Ch'ou fen ch'ang, 'taxing depot'	(unidentified office) ³
Hsüan k'o ssu, 'commissioner of customs'	(unidentified office) ³
Lung Chiang kuan, 'Dragon River barrier'	in the modern Hsia kuan ⁴
Pao ch'uan ch'ang, 'Treasure-ship yard'	in the modern Hsia kuan ⁵
T'ai tzu chou, 'Heir Apparent islet'	(unidentified islet) ⁶
Ts'ai yüan, 'vegetable gardens' [North-west]	(unidentified area) ⁶
Shih tzu shan	Shih tzu mountain
Chi ssu t'an, 'sacrificial altar'	(unidentified altar) ⁷
Tuan yao [North]	(unidentified islet) ⁸
Shui i, 'water post'	(unidentified office) ⁹
P'u tzu k'ou	P'u k'ou (Pukow)
Fu ch'eng ch'iao	(unidentified bridge) ¹⁰
T'ung Chiang ch'iao [North-east]	(unidentified bridge) ¹⁰
Ling shan ch'iao	(unidentified bridge) ¹⁰
Shih hui shan	Huang t'u mountain ¹¹

¹ Built in 1409; on the Lung Chiang, the modern Ch'in huai river, and just outside the I feng gate, the modern Hsing chung gate (Hsü Yü-hu, p. 51).

² Near the T'ien fei temple; marked in Teng Ch'i-hsien's map. We take this to be the Ching hai ssu which a Chinese source states was founded in 1409 (Duyvendak, 'Dates', p. 369, n. 1); but Hsiang Ta (*Cheng Ho*, p. 33) gives the date 1425, and if that is correct, the Mao K'un Map must be dated after that year.

³ Near the barrier.

⁴ On the east side of the Ch'in huai river, near the mouth.

⁵ On the west side of the Ch'in huai river, at the mouth.

⁶ Apparently part of the island later called Chiang Hsin chou; compare Hsiang Ta, *Cheng Ho*, p. 11.

⁷ Written near Shih tzu shan; the editor locates the altar near the modern railway station at Nanking, 32° 03' N, 118° 47' E.

⁸ Now non-existent.

⁹ Written near Shih tzu shan.

¹⁰ A bridge between the city-wall and the Yangtze; but Hsiang Ta (*Cheng Ho*, p. 35) locates it outside the Chin ch'uan gate.

¹¹ Marked in Teng Ch'i-hsien's map. Hsiang Ta (*Cheng Ho*, p. 15) identifies it with Mu fu shan, but that is a different hill in Teng Ch'i-hsien's map.

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[*East*]

Chung shan, 'Bell mountain'	Tzu chin mountain
Fang shan	(unidentified hill) ¹

[*South-east*]

T'ien ti t'an, 'altar of Heaven and Earth'	(unidentified altar) ²
Chung ho ch'iao	Chung ho bridge ³

SECTION 2. THE YANGTZE⁴

[*From Section 1*]

Identifications

<i>Transliteration or translation</i>	<i>Explanation</i>
Kuan yin shan	(unidentified hill) ⁵
Kuan yin men	Kuan yin gate, 32° 08' N, 118° 48' E ⁶
Yen tzu chi	Yen tzu chi village
Lung t'an	Lung t'an town
Chan lung miao	a temple on Lung shan?
Fan shan	Pei hsin chou (Deer island)?
T'ien ning chou	Cheng jen chou island?
Kao tzu chiang	Kao tzu river
I chen	I cheng town, 119° 11' E
Kua chou	Kua chou town
Chin shan	Chin shan (Kin shan, Golden hill)
Chen chiang	Chen chiang (Chinkiang), 32° 12' N, 119° 27' E
Chiao shan	Chiao shan (Silver island)
Tan t'u	Tan t'u town
Ta chiang	Ta chiang village
Tuan shan	Tuan shan hill, 119° 42' E
Chiang yin hsien	Chiang yin (Kiang-yin), 120° 15' E
Shih p'ai wan	Shih p'ai chiang (Shihpaikang) estuary ⁷

¹ About 13 miles from the city; mentioned by Teng Ch'i-hsien.

² Presumably at the Ming tombs.

³ About half a mile south of the modern Kuang hua gate.

⁴ Ff. 3-5. See *Ch'ang Chiang Pilot* (3rd ed., London, 1954), and British Admiralty chart 2946; also Ch'en Hung-mao; de Villard; Mills, 'Coastal Maps'. This section contains 26 place-names; the editor thinks that 19 are identified with reasonable certainty.

⁵ Near the Kuan yin gate.

⁶ Four miles below Nanking.

⁷ Six miles below Chiang yin.

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Hsiang shan	Hsiang shan hill, 120° 23' E
Ch'ien sha	Fu chiang sha
Hsi hsieh shan	Hai pei Chiang sha?
Tung hsieh shan	Chia shan sha?
T'ien fei kung, 'temple of the Celestial Spouse'	(unidentified temple)
Hsün ssu, 'patrol office'	(unidentified office)
Shih t'ou chiang	Fu shan chiang?
Lung wang miao, 'Dragon King temple'	(unidentified temple)
Hsün ssu, Patrol office	(unidentified office)
Ts'ai chiang	Mei li t'ang?
Pai mao chiang	Pai mao river mouth, 121° 03' E ¹
Fu shan miao	(unidentified temple)
Ch'ung ming chou	Ch'ung ming tao
T'ai ts'ang wei, 'T'ai ts'ang military district'	T'ai ts'ang district
T'ien fei kung, 'temple of the Celestial Spouse'	(unidentified temple) ²
Wu sung chiang, 'Wu sung river'	the entrance to Huang p'u chiang (the Whangpoo), 31° 23' N, 121° 31' E ³

Sailing directions

A [*From T'ai ts'ang chiang to Wu sung chiang*] [f. 5] 'The ship starts from T'ai ts'ang chiang [Liu ho], and steers exactly 105°; after 1 watch the ship is level with Wu sung chiang [Wu sung bar] . . .

B [*From Wu sung chiang to T'ai ts'ang chiang*] [f. 5] ' . . . [the ship passes Wu sung chiang] and reaches T'ai ts'ang chiang, where the ship is moored'.

¹ Three miles below Plover point. Compare Hsiang Ta, *Cheng Ho*, p. 15.

² Written near the mouth of the Liu ho (Liu creek).

³ At Wu sung k'ou (Woosung bar), 197 miles from Nanking.

Appendix 2

SECTION 3. THE COAST OF CHINA [FROM THE YANGTZE TO THE MIN RIVER]¹

[FROM SECTION 2]

Identifications

<i>Transliteration or translation</i>	<i>Explanation</i>
Ch'ien sha	Ch'ung ming ch'ien t'an? ²
Hu chiao sha	T'ung sha ch'ien t'an? ²
T'ieh ling sha	T'ung sha shuan sha? ²
Chao pao shan	Pao shan hill ³
Ch'ing ts'un so, 'Ch'ing ts'un military station'	Ching ts'un chen (town), 30° 55' N, 121° 34' E ⁴
Nan hui tsui	Nan hui tsui ⁵
Ch'a shan, 'Tea mountain'	(unidentified rock) ⁶
Ta ch'i	Ta ch'i shan (Gutzlaff island), 30° 48' N
Chin sha wei, 'Chin sha military district'	Chin shan wei (town) 30° 41' N
Cha p'u	Cha p'u town, 30° 36' N
Hsiao ch'i	Hsiao ch'i shan (Hen and Chicks), 30° 42' N ⁷
Hai ning wei, 'Hai Ning military district'	Hai ning town, 30° 24' N, 120° 32' E ⁸
Kuan hai wei, 'Kuan hai military district'	Kuan hai wei ch'eng (town), 30° 10' N, 121° 25' E
T'ang shan	Ta yang shan, 30° 35' N?
Ling shan wei, 'Ling shan military district'	Lung shan so ch'eng (town), 30° 05' N, 121° 33' E
Hsü shan }	T'an hu shan (Middle Seshan islands), 30° 36' N
T'an shan }	
Ni shan	Ta yü shan, 30° 20' N?

¹ Ff. 5-9. See *China Sea Pilot*, vol. III. This section contains 101 place-names; the editor thinks that 84 are identified with reasonable certainty.

² See British Admiralty Chart 1602. These sands east and south-east of Ch'ung ming tao have frequently changed their positions and their names.

³ About half a mile north of Kao ch'iao, 31° 21' N, 121° 35' E. Pao shan is marked in several early maps including Cheng Jo-tseng, *Ch'ou-hai t'u-pien*.

⁴ See British Admiralty Chart 1199.

⁵ In those days 'Nan hui Bill' was close to Nan hui town.

⁶ In the Yangtze estuary, to the eastward of Nan hui; now non-existent.

⁷ See British Admiralty Chart 1124.

⁸ See British Admiralty Chart 2946.

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Ch'ing hsü	Hsiao yü shan, 30° 18' N?
Ting hai wei, 'Ting hai military district'	Chen hai (Chinhai) town, 29° 57' N, 121° 42' E ¹
Ch'ang kuo so, 'Ch'ang kuo military station'	on Chou shan (Chusan island)
Lieh Chiang	Li Chiang chen (town, on Chin t'ang island)
Ch'uan shan	Ch'uan shan chen (town), 29° 53' N, 121° 56' E
Tung ho shan	Tung ho shan, 30° 15' N, 121° 43' E
Hsi hou men	Hsi hou men (Blackwall pass, between Chin t'ang and Chou shan islands)
P'u t'o shan	P'u t'o (Pu-tu) shan (island), 30° 00' N, 122° 22' E
Hsün chien ssu, 'patrol inspector'	(unidentified office; on Ch'i t'ou (Ketow) promontory?)
Ta Mo shan	Ta Mao shan (island), 29° 56' N, 122° 02' E
Shuang hsü men } Shuang hsü men }	Shuang hsü Chiang (Duffield pass)
Po tu	Fo tu (Fa-tu) shan, 29° 44' N
Tung hsü	Liu heng tao (Lu-wang island), 29° 45' N
Tung ch'u	Tung hsü (Niu Pi Shan), 29° 37' N
Hsi ch'u	Hsi hsü shan (Ploughman) 29° 37' N
Kuo chü ch'ien hu so, 'Kuo chü thousand-men military station'	Chüeh ch'i so ch'eng (Jack Ji town), 29° 28' N, 121° 56' E? ²
Ta mien shan	Ta mo shan (Dai muk island), 29° 24' N
Luan chiao yang	southern portion of Niu pi shan channel
Ch'ang kuo ch'ien hu so, 'Ch'ang kuo thousand-men military station'	Ch'ang kuo wei ch'eng (town), 29° 15' N, 121° 56' E
Ta kao ch'ien hu so, 'Ta kao thousand-men military station'	between Ch'ang kuo wei ch'eng and Shih p'u?

¹ See British Admiralty Chart 1429.

² See British Admiralty Chart 1759.

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T'an t'ou shan	T'an t'ou shan (Montague island), 29° 10' N, 122° 02' E
Tung men so, 'Tung men military station'	Shih p'u town, 29° 13' N
Tung men shan	Nan hui shan (Tungmun island), 29° 12' N
Ch'ang kuo wei, 'Ch'ang kuo military district'	near Shih p'u
Tung Hsi yüeh shan ¹	Tung chi shan and kao tao (islands), 28° 43' N
Yü shan	Yü shan lieh tao (Hieshan islands), 28° 53' N, 122° 15' E
Mu an ch'ien hu so, 'Mu an thousand-men military station'	Ch'ien so town, 28° 42' N, 121° 27' E
T'ai chou wei, 'T'ai chou military district'	Lin hai city, 28° 20' N, 121° 05' E
San mu shan	Shang ta ch'en shan, 28° 30' N, 121° 53' E
Yang ch'i shan	Ping feng shan, 28° 27' N
Hai men wei, 'Hai men military district'	Hai men town, 28° 41' N, 121° 26' E
Ta ch'en shan	Hsia ta ch'en shan, 28° 26' N
Huang chiao shan	Shang hsü (island), 28° 24' N
Chih ku	Chih ku shan (Chiku island), 28° 23' N
Shih t'ang	Niu shan (Shetung), 28° 14' N
Sung men wei, 'Sung men military district'	Sung men (Song-men town), 28° 20' N, 121° 35' E
Ta Hsiao Liu ching	Ta lu shan (Taluk island), 28° 05' N, 121° 24' E
Hsia shan	P'i shan (island), 28° 05' N
Ch'ien shan	Ch'ien shan (Seoluk islands), 28° 03' N
Hu tou	Hu t'ou hsü, 27° 50' N, 121° 14' E ²
Hsi ch'iao shan	Tung t'ou shan, 27° 50' N?
P'an shih wei, 'P'an shih military district'	Pang shih wei (town), 28° 00' N, 120° 49' E
Huang shan	Pan mien shan, 27° 48' N?
Chung chieh shan	Pei ts'e shan, 27° 46' N?

¹ For *yueh* read *ch'i*, as in the sailing directions.

² See British Admiralty Chart 1754.

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Yeh ya shan	Nan ts'e shan, 27° 45' N?
Jui an	Jui an town, 27° 45' N, 120° 36' E
Tung lo shan	Pei chi shan (Pi-ki island), 27° 37' N
Wen chou wei, 'Wen chou military district'	written between Jui an and P'ing yang wei
Lu p'ing shan	Pei lung shan, 27° 39' N
P'ing yang wei, 'P'ing yang military district'	P'ing yang town, 27° 40' N, 120° 33' E
Feng huang shan	Feng huang shan (Tsang islands), 27° 41' N, 120° 49' E
Nan chi shan	Nan chi shan (Nam-ki island), 27° 28' N, 121° 04' E
Hsi chiao	Shan ma an (Turret islet), 27° 26' N
Chin hsiang wei, 'Chin hsiang military district'	Chin cheng wei (town), 27° 26' N, 120° 35' E
Nan ch'uan chiao	Lu ying (Castellated rock), 27° 20' N
Hu chiao	Hsing tzu (Seven Stars), 27° 02' N
Chiao, 'rocks'	rocks
Chuang shih ch'ien hu so 'Chuang shih thousand-men military station'	Nan kuan town, 27° 13' N, 120° 27' E?
Shih fan	Lo ying shan (Ping fong island), 27° 09' N
T'ai shan	T'ai shan lieh tao (Tai islands), 26° 59' N
Chiao, 'rocks'	(Ying ko ku lieh tao, Incog islands)
Yang chiao	Strawstack, 26° 56' N, 120° 41' E
Yü shan	Fu yao shan (Fu-yan island), 26° 56' N, 120° 21' E
Man men ch'ien hu so, 'Man men thousand-men military station'	P'u men ch'eng (town), 27° 13' N, 120° 27' E
Tung ch'i	Nan shuang tao (Country island), 26° 38' N
Hsi ch'i	Pei shuang tao (Town island), 26° 42' N
Fu ning wei, 'Fu ning military district'	Hsia p'u (Fu ning) town, 26° 51' N, 120° 00' E
Ta chin hsün ssu 'Ta chin patrol office'	Ta chin hsün, 26° 43' N, 120° 06' E

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Fu jung shan	Fu ying shan (Double Peak island), 26° 34' N
Pi chia shan	Wu hsü (Inside islet), 26° 33' N
Hsiao hsi yang	I ssu ma ssu tao (Isthmus island), 26° 32' N
Hung shan	Chih chu tao (Spider island), 26° 30' N
Chieh ts'ai chiao	O lieh yen (Larva rocks), 26° 29' N
Ta chin men	San tu ao (inlet), 26° 30' N
Tung yung shan	Tung yin shan (Tung yung tao), 26° 22' N
Ting hai wei, 'Ting hai military district'	marked on Tung chung peninsula?
Kuei hsü	Tung sha (Alligator islet), 26° 09' N, 120° 24' E ¹
Pei chiao	Pei ling ssu chiao (point), 26° 22' N
Lien Chiang wei, 'Lien Chiang military district'	Lien Chiang town, 26° 12' N, 119° 32' E
Ting hai so, 'Ting hai military station'	Ting hai town, 26° 17' N, 119° 48' E
T'ien ti	(unidentified mountain)
Ku shan	Kushan peak, 26° 04' N, 119° 23' E
Hsün chien ssu, 'patrol inspector'	at Kwantao?
Wu hu shan	Huang ch'i shan (Wu fu island), 26° 05' N, 119° 37' E, in the Min estuary
Sha ch'ien, 'sand shoals'	to the east of Huang ch'i shan
Hsün chien ssu, 'patrol inspector'	at Ma wei?
Ma t'ou, 'pier'	
Fu chien pu cheng ssu, 'Fu chien government'	at Fu chou
Nan t'ai ch'iao	Nan t'ai bridge at Fu chou

Sailing directions

A [From Wu sung Chiang to Nan hui tsui] [f. 5] 'Steer 105°-90°; after 1 watch the ship reaches Nan hui tsui'.

¹ See British Admiralty Chart 1761.

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B [*From Chao pao shan to Huang ch'i shan*] [f. 5] 'When level with Chao pao [near Kao ch'iao], steer 105° – 120° ; after 3 watches the ship goes out into the main; take a sounding, 6 [f. 5v] or 7 *chang*; that is the correct course. You sight [f. 5] Ch'a shan [f. 5v] on the north-east side; after passing it, steer 135° – 150° ; after 4 watches the ship sights Ta [Ta ch'i shan, $30^{\circ} 48' N$] and Hsiao ch'i shan [Hen and Chicks]; take a sounding, 6 or 7 fathoms. Steer 225° – 240° and [then] 195° – 210° ; after 3 watches the ship makes T'an shan [T'an hu shan]. Steer exactly 180° ; after 3 watches the ship makes Ho shan [Tung ho shan, $30^{\circ} 15' N$]. Steering exactly 180° , [the ship] enters Hsi hou men [Blackwall pass]. Steer 135° – 150° ; after 3 watches the ship makes Ta mo shan [Ta mao shan, $29^{\circ} 56' N$]. Steer [f. 6] 105° – 120° ; after 1 watch the ship makes Hsiao mo shan [Hsiao mao shan], rounds Ch'i t'ou [$29^{\circ} 53' N$], [and makes] Sheng lo hsü [Hsing lo shan].

Steer 195° – 210° ; after 1 watch the ship goes out through Shang hsü Chiang [Duffield pass]. Steer 165° – 180° ; after 1 watch the ship makes Hsiao shun yang [northern portion of Niu pi shan channel]. Take soundings all along the route. [The depth is] 9 fathoms when you are level with Chiu shan [Kue shan islands]. Opposite to Chiu shan on the south-west side there is one sunken rock [f. 6v] which shows above the water when the waves break on it [Hei chiao, Holderness rocks]. Navigate the ship carefully in all directions.¹ After 2 watches the ship is level with T'an t'ou shan [$29^{\circ} 10' N$]. On the east side is Chiang p'ien chiao; on the west side you see Ta fo shan [Ta fu t'ou]. When you are level with Tung Hsi Ch'i shan [Tung Chi shan and Kao tao] steer 195° – 180° ; after 5 watches the ship is level with Yang ch'i [Ping feng shan] and Ta ch'en [Hsia Ta ch'en shan] and San mu [Shang Ta ch'en shan, $28^{\circ} 30' N$] and Huang chiao [Shang hsü]. In front [f. 7] you see Chih ku shan; steer 195° – 210° ; after 2 watches the ship is level with Shih t'ang shan [Niu shan]. Steer 195° – 210° ; after 3 watches the ship is level with Hsia shan [P'i shan, $28^{\circ} 05' N$], and passes it on the outside.'

[*Addendum:*] 'Steer 225° – 210° ; after 2 watches the ship is level with Huang shan [Pan mien shan?]; take a sounding, 17–18 fathoms; [the ship] is level with Chung chieh shan [Pei ts'e shan ?].'

'Steer 225° [f. 7v]– 210° ; after 1 watch the ship makes Tung lo shan [Pei Chi shan]. Steer 225° – 210° ; after 1 watch the ship makes Nan Chi shan [$27^{\circ} 28' N$], and the ship passes outside it. Steer exactly 225° and [then] 225° – 210° ; after 3 watches [f. 8] the ship makes T'ai shan [$26^{\circ} 59' N$]; take a sounding, 20 fathoms. Steer 225° – 210° ; after 3 watches the ship makes Tung ch'i [Nan shuang tao] and Hsi ch'i shan [Pei Shuang tao]. Steer 225° – 210° ; after 2 watches the ship makes Fu jung shan [Fu ying shan], [f. 8v] and

¹ Literally, ' 75° , 285° , 180° '.

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passes outside it. When level with Hung shan [Chih chu tao], steer 225° – 240° and [then] exactly 225° ; after 2 watches the ship makes Pei chiao [Pei ling ssu chiao, $26^{\circ} 22' N$].'

[*Addendum*.] [f. 7v] 'Passing within Tung lo shan men [the passage westward of Pei Chi shan], steer 255° – 240° and [then] 225° – 240° ; after 1 watch the ship is level with Feng huang shan [$27^{\circ} 41' N$]. On passing Nan chi shan [$27^{\circ} 28' N$] take [f. 8] a sounding, 13 fathoms. Steer 225° – 210° ; after 3 watches the ship makes T'ai shan [$26^{\circ} 59' N$], and passes inside it. Steer 225° – 210° ; after 3 watches the ship makes Tung ch'i [Nan Shuang tao], and passes inside it. The ship steers 225° – 210° , [f. 8v], and after 2 watches the ship makes Fu jung shan [Fu ying shan], and passes inside it. Steer 195° – 210° ; after 1 watch the ship passes Hsiao hsi yang shan [I ssu ma ssu tao]. Steer 195° – 180° ; after 1 watch the ship makes Pei chiao t'ou men [the passage between Pei ling ssu chiao and Pei hsü (island), $26^{\circ} 22' N$]; pass within it; follow the mountains, make Ting hai [f. 9] So [Ting hai town], and pass in front of it. Steer 195° – 180° ; after 2 watches the ship makes Wu hu shan [Huang ch'i shan, $26^{\circ} 05' N$].'

c [*From Huang ch'i shan to Wu sung chiang*] [f. 9] '[. . . Wu hu shan]. Steer 30° – 45° ; [f. 8v] after 3 watches the ship makes Kuei hsü [Tung sha, $26^{\circ} 09' N$]. Steer 30° – 45° ; after 1 watch the ship makes Tung yung shan [Tung yin shan, $26^{\circ} 22' N$], and passes outside it. From Tung yung shan steer 30° – 45° ; after 2 watches [f. 8] the ship is level with Tung ch'i shan [Nan Shuang tao] and Hsi ch'i shan [Pei Shuang tao]. Steer 30° – 45° ; after 2 watches the ship is level with T'ai shan [$26^{\circ} 59' N$]. Steer 30° – 45° ; after 3 watches the ship makes Nan chi [$27^{\circ} 28' N$]. [f. 7v] Steer 30° – 45° ; after 2 watches the ship makes Tung lo shan [Pei chi shan]. Steer 30° – 45° ; after 1 watch the ship is level with Chung chieh shan [Pei ts'e shan ?] [f. 7] and Huang shan [Pan mien shan ?]. Steer 15° – 30° ; after 3 watches the ship makes Hsia shan [P'i shan, $28^{\circ} 05' N$], and passes outside it. Steer 15° – 30° ; after 3 watches the ship is level with Chih ku shan [$28^{\circ} 23' N$]. Steer 15° – 30° ; [f. 6v] after 2 watches the ship makes Yang ch'i shan [Ping feng shan] and Ta ch'en [Hsia Ta ch'en shan] and San mu shan [Shang Ta ch'en shan]. Steer 0° – 15° ; after 2 watches the ship makes Tung Hsi Ch'i shan [Tung chi shan and Kao tao]. Steer 0° – 15° ; after 3 watches the ship makes Tan-t'ou shan [$29^{\circ} 10' N$], and passes outside it. Appearing opposite is a rock; the ship can pass inside or outside it; on the north-east side there is a sunken rock on which the waves break, [navigate] carefully; the ship can pass inside or outside it. [f. 6] Steer 0° – 15° ; after 3 watches the ship makes Chiu shan [$29^{\circ} 26' N$] and Luan chiao yang [southern portion of Niu pi shan Channel]. Steer 345° – 360° ; after 2

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watches the ship passes Hsiao shan yang [northern portion of Niu pi shan channel], and makes Shuang hsü chiang [Duffield pass]. Steer 15° – 30° ; after 1 watch [f. 5v] the ship makes Sheng lo hsü [Hsing lo shan] and Miao chou men [the channel between Roundabout island and the coast], passes within [the latter] and goes round Ch'i t'ou [$29^{\circ} 53' N$]. Steer 285° – 300° ; after 1 watch the ship makes Ta mo shan [Ta mao shan]. Steer 315° – 330° ; after 2 watches the ship goes out through Hsi hou men [Blackwall pass]. Steer exactly 0° , and make Ho shan [Tung ho shan, $30^{\circ} 15' N$]. Steer exactly 0° and [then] 0° – 15° ; after 3 watches the ship makes T'an [f. 5] shan [T'an hu shan]. Steer 15° – 30° ; after 3 watches the ship makes Ch'i shan [Ta ch'i shan, $30^{\circ} 48' N$]. Steer 315° – 330° ; after 4 watches the ship sights Ch'a shan. Steer 285° – 270° ; after 3 watches the ship makes Nan hui tsui, leaves the main, and comes level with [f. 4v] Pao shan [Chao pao shan near Kao ch'iao]. Steer 285° – 270° ; after 3 watches the ship passes Wu sung chiang.'

SECTION 4. THE COAST OF CHINA [FROM THE MIN RIVER TO THE BORDER]¹

[FROM SECTION 3]

Identifications

<i>Transliteration or translation</i>	<i>Explanation</i>
Kuan t'ang shan, 'Official Embankment mountain'	Chi hsing chiao (Outer Min reef), ²
Ch'ang lo	$26^{\circ} 05' N$, $119^{\circ} 49' E$ Ch'ang lo district, c. $26^{\circ} 00' N$, $119^{\circ} 37' E$
San chiao, 'three rocks'	Ma shan, Chu shan, and Nan wu fu chiao islet, close to the coast
Nan shan ssu, 'south mountain temple'	(unidentified temple)
Liu p'ing shan, 'six equal mountains'	Lover's Leap (mountain)?
Liu p'ing shan	Tung fung shan (mountain)?
Tung sha	Hsi ch'uan tao (White Dogs), $25^{\circ} 58' N$, $119^{\circ} 55' E$
Mei hua ch'ien hu so, 'Mei hua thousand-men military station'	Mei hua (Mei wa) village, $26^{\circ} 01' N$
Niu chu	Niu shan (Turnabout island), $25^{\circ} 25' N$, $119^{\circ} 56' E$

¹ Ff. 9–11v. This section contains 68 place-names; the editor thinks that 62 are identified with reasonable certainty.

² See *China Sea Pilot*, vol. III and British Admiralty Chart 1761.

Appendix 2

Niu chüeh shan	Yü kuo shan (Cow's Horn), 25° 45' N, 119° 36' E
Tung ch'iang	Hai t'an tao (P'ing t'an island), 25° 00' N
Ts'ao hsü	Ts'ao hsü (Chim island), 25° 22' N
Chen tung wei, 'Chen tung military district'	Kao shan town, 25° 28' N ²
Nan jih shan	Nan jih tao (Lam Yit island), 25° 13' N
Wu ch'iu shan	Wu ch'iu hsü (Ockseu islands), 24° 59' N, 119° 27' E
Hsing hua fu	Hsing hua (P'u t'ien) town, 25° 27' N
Mei chou kung, 'Mei chou temple'	Mei chou tao (Meichen island), 25° 04' N ¹
P'ing hai wei, 'P'ing hai military district'	P'ing hai town, 25° 11' N, 119° 16' E
Ch'ung wu so, 'Ch'ung wu military station'	Ch'ung wu (Tongbu) town, 24° 53' N ²
Ch'üan chou wei, 'Ch'üan chou military district'	Ch'üan chou city, 24° 54' N
Hsün chien ssu, 'patrol inspector'	at Hsiang chih chiao (Chung Chi point)
Yung ning wei, 'Yung ning military district'	Yung ning town, 24° 40' N, 118° 41' E
P'ing hu hsü	Pescadores islands
Chin men ch'ien hu so, 'Chin men thousand-men military station'	Chin men tao (Quemoy island), 24° 27' N
Shen hu hsün chien ssu, 'Shen hu patrol inspector'	Shen hu (Chimmo) town, 24° 37' N, 118° 40' E
Chang chou	Lung ch'i (Chang chou city), 24° 30' N, 117° 40' E
Chia mu ch'ien hu so, 'Chia mu thousand-men military station'	Hsia men (Amoy city), 24° 27' N
Ta wu shan	Nan t'ai pagoda, 24° 20' N, 118° 03' E

¹ The original home of Niang ma, the Taoist deity also known as T'ien hou, the Queen of Heaven, or T'ien fei, the Celestial Spouse, the sailors' goddess.

² See British Admiralty Chart 1760.

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Hsiao kan	Hsiao kan shan	{ Hsiung ti tao, Brothers islands, 23° 33' N
Ta kan	Ta kan shan	
T'ung shan ch'ien hu so, 'T'ung shan thousand-men military station'	Tung shan tao (island),	23° 40' N
Wai p'ing	Nan p'ing tao, Lamock islands,	23° 15' N ¹
Nan ao shan	Nan ao tao (Namoa island)	23° 25' N, 117° 02' E
Ta hsing chien	Pedro Blanco (Ta-sing-cham islet),	22° 19' N, 115° 07' E ²
P'u t'ai shan	P'u t'ai (Po toi) island,	22° 10' N, 114° 15' E
Kuan fu chai, 'Kuan fu stockade'	Nan t'ou town,	22° 31' N, 113° 54' E ³
Fo t'ang men	Fat tau mun (channel),	22° 15' N, 114° 17' E
Tung Chiang shan	Tan kan island,	22° 02' N, 114° 16' E
Ta hsi shan	Hong Kong island	
Weng hsieh shan	Erh chou island,	22° 00' N, 114° 11' E
Ling ting shan	Wai ling ting island,	22° 06' N, 114° 01' E
Hsiao hsi shan	Lantao island,	22° 15' N
Tung kuan so, 'Tung kuan military station'	Tung kuan town,	23° 04' N, 113° 45' E
Pei chien	Pei chien island,	21° 53' N, 114° 02' E
Nan t'ing shan	Nei ling ting island,	22° 25' N, 113° 48' E
Chiu hsing, 'Nine Stars'	Chiu chou (Nine islets),	22° 14' N, 113° 36' E
Lu ching kao lan	Kao lan island,	21° 55' N, 113° 15' E ³
Nan hai wei, 'Nan hai military district'	Nan hai (Fat shan city),	23° 57' N, 113° 06' E

¹ See British Admiralty Chart 1962.

² See *China Sea Pilot*, vol. 1 and British Admiralty Chart 3026.

³ See British Admiralty Chart 3992.

Appendix 2

Shang Hsia Ch'uan shan	Shang Ch'uan shan (St John island) and Hsia Ch'uan shan, c. 21° 40' N Macclesfield bank, c. 19° 12' N, 113° 53' E
Shih hsing shih t'ang, 'Stone Stars stone embankments'	Ta Heng ch'in island, 22° 06' N, 113° 31' E
Ta chin	on Macau island (Hsiang shan peninsula)
Hsiang shan so, 'Hsiang shan military station'	Hsiao Heng ch'in island, 22° 05' N, 113° 30' E?
Hsiao chin	channel (112° 50' E) between Shang ch'uan shan and Wu chu chou (island)
Wu chu men	Kuang hai town, 21° 57' N, 112° 46' E
Kuang hai wei, 'Kuang hai military district'	Taya islands, 19° 59' N, 111° 16' E
Ch'i chou	Tien pai town, 21° 30' N, 111° 18' E
Shen tien wei, 'Shen tien military district'	Paracel islands, c. 15° 47' N, 111° 12' E
Wan sheng shih t'ang hsü	Kao chou prefecture (Mao ming city, 21° 55' N, 110° 52' E)
Kao chou	T'ung ku shan (on Hai nan island), 19° 40' N, 111° 01' E
T'ung ku shan	Kuang tung province
Kuang tung	Paracel reefs
Shih t'ang	Wan ning (Vung Chiu district, 18° 47' N, 110° 22' E, on Hai nan island) ¹
Wan chou	Lei chou (Lui Chow) prefecture (Hai k'ang city, 20° 54' N, 110° 04' E)
Lei chou	Ta chou tao (Tinhosa island), 18° 40' N, 110° 28' E
Tu chu shan	Ch'iung chou prefecture (Ch'iung Shan city, 20° 00' N, 110° 21' E, on Hai Nan island)
Ch'iung chou fu	Lien chou prefecture (Lien chou (Ho p'u) town, 21° 40' N, 109° 11' E)
Lien chou	

¹ See British Admiralty Chart 2062.

The Mao K'un Map

Fu chou	Tan hsien (Tamchow district, 19° 44' N, 109° 19' E, on Hai nan island) ?
Ch'in chou	Ch'in hsien (21° 57' N, 108° 37' E)
Nan hai Li mu ta shan, 'Mother Li Great mountain [in] Nan hai'	Loi vöe mountain, 19° 11' N, 109° 45' E, on Hai nan island

Sailing directions

A [*From Huang ch'i shan to Niu shan*] [f. 9] 'Steer 105°–120°; come level with the two rocks [called] Kuan t'ang [Chi hsing chiao, 26° 05' N], and pass outside them. Steer 165°–150°; make [f. 9v] Tung sha [Hsi ch'uan tao]. From Tung sha steer exactly 150°; after 3 watches the ship is level with Niu shan [25° 25' N].'

B [*From Ta chou tao to Huang ch'i shan*] [f. 11] 'From Tu chu shan [Ta chou tao, 18° 40' N, 110° 28' E] steer exactly 45° for 5 watches; the ship steers 45°–60° for 10 watches,¹ comes level with Ta hsing [f. 10v] chien [Pedro Blanco, 22° 19' N], and passes outside it. From Ta hsing chien steer exactly 60°; after 15 watches the ship is level with Nan ao shan [23° 25' N] and Wai p'eng shan [Nan p'ing tao], and passes outside them. Steer 45°–60°; after 3 [f. 10] watches the ship is level with Ta kan and Hsiao kan [Brothers islands, 23° 33' N], and passes outside them. Steer exactly 45°; after 4 watches the ship is level with Ta wu shan [24° 20' N]. From Ta wu shan steer exactly 45°; after 7 watches the ship is level with Wu ch'iu shan [Wu ch'iu Hsü, 24° 59' N]. [f. 9v]. From Wu ch'iu shan steer 45°–60°; after 4 watches the ship is level with Niu shan [25° 25' N]. Steer 30°–45°; after 5 watches [f. 9] the ship makes Tung sha shan [Hsi ch'uan tao, 25° 58' N]. From Tung sha shan steer 30°–45°;² after 1 watch the ship is level with Kuan t'ang shan [Chi hsing chiao, 26° 05' N]. Steer 30°–45°; after 1 watch the ship makes Wu hu shan [Huang ch'i shan].

¹ The other books of sailing directions indicate that this total of 15 watches must be changed to 25 watches.

² This and the next direction are inconsistent with the directions given for the southward journey, and are clearly wrong. The map is also wrong in indicating that Kuan t'ang shan (119° 49' E) lay on the east side of the course from Tung sha (Hsi ch'uan tao, White Dogs, 119° 55' E) to Kuei hsü (Tung sha, Alligator islet, 120° 24' E).

Appendix 2

SECTION 5. THE COASTS OF VIETNAM, CAMBODIA, AND THAILAND, AND THE EAST COAST OF MALAYA¹

[FROM SECTION 4]

Identifications

<i>Transliteration or translation</i>	<i>Explanation</i>
Chiao chih chieh, 'The border of Chiao chih'	Mon-cay river, mouth in 107° 57' E ²
Ta ling hu shan	Hui Am Yap mountain, 21° 07' N, 107° 08' E?
Wai lo shan	Culao Ré, 15° 23' N ³
Chiao chih yang, 'Chiao chih ocean'	the sea off the coast of North Vietnam, from about 20° N to 15° N
Tai mei shan, 'Tortoise-shell mountain'	Cape Batangan, 15° 14' N
Shih p'ai chiao, 'Stone Tablet Dragon'	Rocher Plat (Flat rock), 15° 11' N, 108° 56' E
Pai sha wan	Vung Moi bay, 14° 13' N?
Ch'ing hsü, 'Black island'	Ile Buffle (Buffalo isle), 14° 08' N
Chan ch'eng kuo, 'the country of Chan city'	central Vietnam (Champa)
Chiao pei hsü, 'Tally islands'	Nui Ong Co and Nui Ong Can, 13° 54' N
Kuan mu shan	Nui Dau Goc Let mountain, 13° 50' N
Hsin chou chiang, 'New Islet anchorage'	Qui Nhon port, 13° 46' N
Yang hsü, 'Ocean island'	Poulo Gambir, 13° 37' N ⁴
Chi lung shan	Niu Mo Cheo mountain, 13° 22' N?
Hsiao wan	Bay of Vung Chua, 13° 26' N?
Ling shan, 'holy mountain'	Cape Varella, 12° 54' N
Ta wan	Bay of Van Fong, 12° 33' N ⁵
Lo han hsü	Hon Lon (island), 12° 12' N
Lo wan t'ou	Cape Padaran, 11° 22' N, 109° 01' E

¹ Ff. 11v-15v. This section contains 80 place-names; the editor thinks that 64 are identified with reasonable certainty.

² See *China Sea Pilot*, vol. 1 and British Admiralty Chart 3990.

³ See British Admiralty Chart 3988.

⁴ The reading should be Yang hsü, 'Goat island'.

⁵ See British Admiralty Chart 3987.

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[*South China Sea*]

Tai mei chou, 'Tortoise-shell islet'	Poulo Ceçir de Mer (Ceçir-in-the-ocean), 10° 32' N, 108° 55' E
Tung tung	Poulo Sapatu, 9° 59' N, 109° 05' E ¹
Hsi tung	Great Catwick, 10° 03' N, 108° 53' E
Ch'ih k'an, 'Red Pit'	Point Ké Ga, 10° 41' N, 107° 59' E ²
Shang la Chiang	Song Dinh (river), mouth in 107° 46' E. ²
Fu ting shan	Nui Khong (Nong) (mountain), 10° 48' N, 107° 45' E
Chan p'u shan	Nui Chau Vien (mountain), 10° 24' N, 107° 15' E
Fo shan	Cape St Jacques, 10° 19' N, 107° 05' E
Chan la Chiang, 'Chan la anchorage'	Song Soirap, c. 10° 35' N
Pa k'ai Chiang, 'Eight Openings anchorage'	the junction of Song Soirap and Song Vaico, 10° 29' N, 106° 43' E
Chan la kuo, 'The country of Chan la'	Cambodia
Chu-li-mu, 'Chidor-muc'	Pnom Penh town, 11° 33' N, 104° 55' E ³
Pai chiao, 'White rock'	Rocher Blanc (White rock), 3 miles north-east of Grand Condore
K'un-lun shan	Grand Condore, 8° 41' N, 106° 36' E
Pin-lang chou	Hon Bai Canh (island), due eastward of Grand Condore
Chu hsü	Petite (Little) Condore, islet close south-westward of Grand Condore
Ta Heng	Poulo Panjang, 9° 18' N, 103° 28' E ⁴
Hsiao Heng	Poulo Wai, 9° 55' N, 102° 51' E
Hsiao K'un-lun	Les Frères (The Brothers), 8° 35' N, 106° 07' E, islets c. 24 miles west of Grand Condore

¹ Tung Tung and Hsi Tung are the 'Tomsitom' of Linschoten.

² See British Admiralty Chart 3986.

³ See Hsiang Ta, *Cheng Ho*, p. 17.

⁴ Ta Heng and Hsiao Heng are wrongly placed before Hsiao K'un-lun instead of after Chia hsü, below.

Appendix 2

Chen hsü, ¹ 'True island'	Non Khoai (Poulo Obi), 8° 26' N, 104° 49' E
Chia hsü, 'False island'	Fausse (False) Poulo Obi, 8° 52' N, 104° 31' E ²
Hsiang k'an	Phu Quoc (Koh Tron island), 10° 22' N, 104° 02' E ²
Nai men	Koh Rong Sam Lem (island), 10° 36' N, 103° 17' E ²
Hsiao Shih lan	Koh Kut (island), 11° 37' N, 102° 33' E ²
Ta Shih lan	Ko chang (island), 12° 01' N, 102° 19' E ^{2,3}
Chan pen Chiang	Maenam Chanthaburi (Chentabun river), mouth in 12° 27' N, 102° 02' E ²
Chüeh yüan shan	Khao Sattahip (hill), 12° 41' N, 100° 55' E ⁴
Chu hsü, 'Bamboo island'	the bank off the mouth of Maenam Phet Buri, 13° 12' N, 99° 59' E ⁵
Hsien Lo kuo, 'the country of Hsien Lo'	Thailand
Pi chia shan, 'Pen-rack mountain'	Khao Samroi-yot, 12° 14' N, 99° 56' E
Hsi chüeh shan, 'Rhinoceros Horn mountain'	Ko Satakut (island), 12° 12' N, 100° 02' E ²
Li t'ou shan, 'Plough-share mountain'	Khao Takiap headland, 12° 30' N ²
Ch'u su mu, 'produces sapan-wood'	
Ch'ih k'an	Ko Hluam (island), 11° 45' N, 99° 50' E ²
Ma an shan	Ko Tao (island), 10° 06' N, 99° 51' E
Fo shan	Ko Iang (island), 10° 51' N, 99° 28' E ⁶

¹ Properly Chen wang hsü, 'True King's island'.

² See British Admiralty Chart 2414.

³ The islands from Chu hsü to Ta Shih lan are badly jumbled, but the main route via K'un-lun shan, Hsiao K'un-lun, Chen hsü shan, Ta heng shan, Hsiao heng shan, and Pi chia shan is established by the sailing directions given in 'Shun-feng', ff. 21-2, 50.

⁴ See British Admiralty Chart 3965.

⁵ No island now exists.

⁶ See British Admiralty Chart 2414.

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Shih pan chou	Ko Phangan (island), 9° 42' N, 100° 02' E
Hai men shan	Ko Samui (island), 9° 27' N, 100° 00' E
Chung pu ch'ien	Hlaem Kolam spit, c. 8° 27' N, 99° 11' E
Tai mei hsü	Ko Krah, island off the east coast of Thailand, 8° 25' N, 99° 45' E
Sun-ku-na	Songkhla town, 7° 11' N
Mao shu hsü, 'Cat and Rat islands'	Ko Maeo and Ko Hnu, 7° 14' N
Lang-hsi-chia, 'Langkasuka'	the district to the north of Pattani
K'un hsia ch'ih Chiang, 'the anchorage of the lower stream of [Liu-] k'un [Nakhon]'	Ao Pattani (bay), c. 6° 54' N, 101° 18' E
Ch'u Chiang chen, 'produces laka-wood'	
Yen tun hsü	Pulau Susu Dara, 5° 57' N
K'un hsia ch'ih, 'the lower stream of [Liu-] k'un [Nakhon]'	a note referring to Ao Pattani
Hsi Chiang	Maenam Sai Buri estuary, 6° 42' N
Ch'u Chiang Hsiang, 'produces laka-wood'	
Chi-lan-tan Chiang	Sungei Kelantan estuary, 6° 11' N
San chüeh hsü	Pulau Perhentian Besar, 5° 53' N
Shih shan	Pulau Lang Tengah, 5° 47' N
Yang hsü	Pulau Redang, 5° 47' N?
Chüeh yüan	Pulau Bidong Laut, 5° 36' N
Shih yüan hsü	Pulau Chipu, 5° 40' N?
Ting-chia-hsia-lu ¹	Trengganu, 5° 20' N
Tou hsü	Pulau Tenggol, 4° 49' N ²
P'eng-hang Chiang	Sungei Pahang estuary, 3° 31' N
Ch'u-ma shan	Pulau Tioman, 2° 46' N
Shih chiao	Pulau Sribuat, 2° 41' N
Tung Chu shan } Hsi Chu shan }	Pulau Aur, 2° 26' N
Chiang chün mao	Pulau Tinggi, 2° 18' N
Pai chiao, 'White rock'	Pedra Branca, 1° 19' N, 104° 24' E

¹ Omit *hsia*.

² See British Admiralty Chart 3543.

Appendix 2

Sailing directions

[f. 15] 'After passing Pai chiao [Pedra Branca, $1^{\circ} 19' N$] steer 15° – 30° and [then] exactly 15° ; after 5 watches the ship is level with Tung Chu shan [Pulau Aur, $2^{\circ} 26' N$], and passes outside it. After passing Tung Chu shan, steer 0° – 30° ¹ and [then] exactly 15° ; [f. 14v] the ship makes K'un-lun shan [Grand Condore, $8^{\circ} 41' N$], and passes outside it.² [f. 13] After passing on the outside of K'un-lun shan steer 15° – 30° ; after 15 watches the ship makes Ch'ih k'an shan [Point Ké Ga, $10^{\circ} 41' N$, $107^{\circ} 59' E$]. Steer 30° – 45° and [then] exactly 45° . . .'

[There is a hiatus in respect of the voyage to Ling shan [Cape Varella]; 'Shun-feng' gives the stages as 5 watches from Ch'ih k'an shan [Point Ké Ga] to Lo wan i'ou [Cape Padaran, $11^{\circ} 22' N$], 5 watches to Ch'ieh-nan-mao shan [Hon Heo mountain, $12^{\circ} 24' N$, $109^{\circ} 16' E$], 3 watches to Ling shan [Cape Varella, $12^{\circ} 54' N$].]

[f. 12v] 'From Ling shan steer 345° – 360° and [then] exactly 345° ; after 5 watches the ship [f. 12] is level with Yang hsü [Poulo Gambir, $13^{\circ} 37' N$], and [then] makes Chiao pei shan [Nui Ong Co and Nui Ong Can, $13^{\circ} 54' N$].³ From Chiao pei shan steer 345° – 360° ; after 7 watches the ship makes Wai lo shan [Culao Ré, $15^{\circ} 23' N$], and passes outside it. [f. 11v] Passing on the inside of Wai lo shan, [steer] 15° – 30° and [then] exactly 15° ; after 21 watches the ship is level with Tu chu shan [Ta chou tao, $18^{\circ} 40' N$, $110^{\circ} 28' E$].'

[Since Cheng Ho or his delegate often went to Thailand, we set out the main stages (as given in 'Shun-feng') for the voyages from Grand Condore to Thailand and thence to Pedra Branca on the main route to India. From K'un-lun shan [Grand Condore, $106^{\circ} 36' E$], 3 watches to Hsiao K'un-lun shan [The Brothers, $106^{\circ} 07' E$]; 8 watches to Chen hsü shan [Non Khoai, $104^{\circ} 49' E$].⁴ From Chen hsü shan, 10 watches to Ta Heng shan [Poulo Panjang, $103^{\circ} 28' E$]; 5 watches to Hsiao heng shan [Poulo Wai, $102^{\circ} 51' E$]; 20 watches to Pi chia shan [Khao Samroiyot, $12^{\circ} 14' N$, on the coast of Thailand]; 10 watches to Wu ni ch'ien [the mudbank off Hlaem Phak Bia, $13^{\circ} 01' N$].⁵ From Wu ni ch'ien, 3 watches to Chu hsü [the mudbank off Ban Hlaem village, $13^{\circ} 12' N$]; and 5 watches to the shallows [off Maenam Mae Klong, $13^{\circ} 21' N$].⁶ On the southward journey ships followed the coast from Khao Samroiyot; 5 watches to Kuei shan [Ko Hluam, $11^{\circ} 45' N$]; 10 watches to Fo hsü [Ko

¹ The reading ' 0° – 30° ' should probably be ' 0° – 15° '.

² This took 43 watches (Chang Hsieh, p. 120).

³ This took 3 watches (Chang Hsieh, p. 119).

⁴ Ff. 21–22v.

⁵ F. 50.

⁶ Ff. 21v–22.

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Iang, 10° 51' N].¹ From *Fo hsü*, 10 watches to *Ta Su-mei shan* [*Ko Samui*, 9° 27' N]; 15 watches to *Tai mei shan* [*Ko Krah*, 8° 25' N]; 10 watches to *Sun-ku-na* [*Songkhla*, 7° 11' N]; 5 watches to *Ta-ni Chiang k'ou* [*Pattani river estuary*, 6° 54' N].² From *Ta-ni Chiang k'ou*, 7 watches to *Chi-lan-tan Chiang k'ou* [*Kelantan river estuary*, 6° 11' N]; 4 watches to *San chüeh hsü* [*Pulau Perhentian Besar*, 5° 53' N].³ From *San chüeh hsü*, 3 watches to *Chüeh yüan shan* [*Pulau Bidong Laut*, 5° 36' N].⁴ From *Chüeh yüan shan*, 3 watches to *Mien hua hsü* [*Pulau Kapas*, 5° 12' N]; 5 watches to *Tou hsü* [*Pulau Tenggol*, 4° 49' N]; 5 watches to *P'eng-heng Chiang k'ou* [*Pahang river estuary*, 3° 31' N]; 5 watches to *Ch'u-p'an shan* [*Pulau Tioman*, 2° 46' N].⁵ From *Ch'u-p'an shan*, 11 watches to *Pai chiao* [*Pedra Branca*, 1° 19' N].⁶

SECTION 6. SINGAPORE STRAIT⁷

[FROM SECTION 5]

Identifications

<i>Transliteration or translation</i>	<i>Explanation</i>
Ta-na ch'i hsü, 'Ta-na river island'	Bukit Pengerang (hill), 1° 22' N, 104° 06' E. ⁸
Ma an shan, 'Horse-saddle mountain'	Bintan Great hill, 1° 04' N, 104° 27' E
Kuan hsü, 'Official island'	Pulau Tembakul, 1° 13' N, 103° 51' E ⁹
P'a nao hsü, 'Twisted Lute island'	Poulo Anak Sambo, 1° 10' N, 103° 53' E
P'i p'a hsü, 'Lute island'	Pulau Sakijang Pelepah, 1° 13' N, 103° 51' E
Tan-ma-hsi, 'Tumasik'	Singapore, 1° 17' N, 103° 51' E
Niu shih chiao, 'Ox Dung rock'	Buffalo rock, 1° 09' N, 103° 49' E
Ch'ang yao hsü, 'Long Waist island'	Pulau Satumu (Coney islet, Raffles lighthouse), 1° 09' N, 103° 44' E
Liang san hsü, 'Parasol island'	Poulo Labon, 1° 05' N, 103° 46' E
Sha t'ang ch'ien, 'Granulated Sugar shoal'	Poulo Nipa reef, 1° 08' N, 103° 39' E

¹ Ff. 31 and 33.

² Ff. 31v-32.

⁴ F. 32 and compare Lü P'an and Lu Ch'eng-en, f. 37.

⁵ F. 32.

⁶ Compare f. 50v.

⁷ Ff. 15v-16. See the *Malacca Strait Pilot* (4th ed., London, 1958), and Appendix 4, The location of Lung ya strait. This section contains 12 place-names; the editor thinks that 11 are identified with reasonable certainty.

⁸ See British Admiralty Chart 2403.

⁹ See British Admiralty Chart 3833.

Appendix 2

Chi-li-men	Little Karimun island, 1° 08' N, 103° 24' E
P'ing chou	the Brothers, 1° 11' N, 103° 21' E

Sailing directions

[f. 15v] 'From Chi-li-men [Little Karimun island, 103° 24' E], for 5 watches the ship steers 105°-120° and [then] exactly 120°, makes Ch'ang yao hsü [Pulau Satumu, Raffles Lighthouse], and goes out through Lung ya strait. From Lung ya strait, steering 75°-90° [f. 15] for 5 watches, the ship makes Pai chiao [Pedra Branca, 104° 24' E].'

SECTION 7. SOUTHERN BORNEO, JAVA, AND SUNDA STRAIT¹

[FROM SECTION 5]

Identifications

<i>Transliteration or translation</i>	<i>Explanation</i>
Tung she lung	Tandjung Datu, 2° 05' N, 109° 39' E ²
Sha wu p'i	Merundung island in Api passage, 2° 04' N, 109° 06' E ³
T'ung ku shan	Gunung Asu Ansang (mountain), 1° 49' N, 109° 34' E
Wan nien hsü ⁴	St Petrus or Muri islet, 1° 54' N
Shih erh tzu shan	Burung Kepulauan (islands), 0° 45' N ⁵
Chia-li-ma-ta	Karimata island, 1° 36' S ⁶
Chiao-lan shan	Gelam islet, 2° 53' S
Chi-li-men	Karimundjawa islands, 5° 52' S, 110° 27' E ⁷

¹ Ff. 13-14v. See the *China Sea Pilot*, vol. II (3rd ed., London, 1961). This section contains 13 place-names; the editor thinks that 12 are identified with reasonable certainty.

² See British Admiralty Chart 2660a. If this identification is correct, the map errs in marking a ship's track on the east side of the so-called island. The approximate position of the place is confirmed by the west-to-east voyage from Ch'u-p'an [Pulau Tioman] to Wen-lai [Brunei] ('Shun-feng', ff. 52v-53).

³ 'In the middle of the strait there is one small island called Sha hu p'i' ('Shun-feng', f. 40v).

⁴ Cantonese pronunciation *Man nyn*.

⁵ See British Admiralty Chart 941a. The 'Twelve Boys mountains' are said to be 3 or 5 watches north of Karimata island ('Shun-feng', f. 29 and f. 41v).

⁶ See the *Eastern Archipelago Pilot*, vol. IV (3rd ed., London, 1953).

⁷ See the *Eastern Archipelago Pilot*, vol. II (7th ed., London, 1961).

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Chao-wa kuo [<i>Sunda strait</i>]	the country of Java
Ta Hsiao I shan, 'Wife's elder and younger sisters mountain'	Sangian island, 5° 57' S ¹
Liu huang hsü, 'Lava-flowing island'	Rakata (Krakatau) island, 6° 09' S
Lan-pang chiang	Lampung bay, c. 5° 40' S
Ma an shan, 'Horse-saddle mountain'	Verlaten island, 6° 05' S

Sailing directions

[The map contains no sailing directions; we can, however, set out the main stages derived from other sources. From Ling shan [Cape Varela, 12° 54' N] 13 watches to Tung hsi tung [Great Catwick and Poulo Sapatu, 9° 59' N];² 45 watches to Tung she lung shan [Tandjung Datu, 2° 05' N];³ 11 watches to Chia-li-ma-ta [Karimata island, 1° 36' S];⁴ 10 watches to Chiao-lan shan [Gelam islet, 2° 53' S];⁵ 30 watches to Chi-li-men shan [Karimundjawa islands, 5° 52' S];⁶ 4 watches to Pao-lao-an shan [Djapara mountain, that is, Murjo Pegunungan, 6° 35' S, 110° 52' E];⁷ 8 watches to Na-ts'an shan [Lasem Pegunungan, 111° 31' E];⁸ 2 watches to Tu-pan shan [Tuban, 112° 04' E];⁹ and 5 watches to Hsin ts'un [Gresik, 7° 09' S, 112° 39' E], or alternatively to Jao-tung [Jaratan].]¹⁰

SECTION 8. THE WEST COAST OF SUMATRA¹¹

[FROM SECTION 7]

Identifications

<i>Transliteration or translation</i>	<i>Explanation</i>
Yeh tzu t'ang, 'Coconut embankment'	Batu Ketjil (Betua island), 5° 53' S
Ta chin shan, 'Gold-working mountain'	Langgar (hill), 5° 49' S

¹ See *Eastern Archipelago Pilot*, vol. IV and British Admiralty Chart 2056.

² 'Shun-feng', f. 40v.

³ 'Shun-feng', f. 27v.

⁴ 'Shun-feng', ff. 28, 41.

⁵ 'Shun-feng', ff. 28, 28v, 41.

⁶ 'Shun-feng', f. 28; Huang Sheng-tseng, ch. 1, f. 7.

⁷ Chang Hsieh, p. 122.

⁸ Huang-Sheng-tseng, ch. 1, ff. 7-7v.

⁹ Compare 'Shun-feng', f. 28 and Huang Sheng-tseng, ch. 1, f. 7v.

¹⁰ Huang Sheng-tseng, ch. 1, f. 7v; 'Shun-feng', f. 40v. Jaratan or Jortan lay close to the southward of Gresik.

¹¹ Ff. 14v-18. See *Malacca Strait Pilot* and British Admiralty Charts 941a and 2760. This section contains 20 place-names; the editor thinks that 16 are identified with reasonable certainty.

Appendix 2

Hsi chüeh shan, 'Rhinoceros Horn mountain'	Pematang Langgar (hill), 5° 25' S
P'i-sung hsü	Pisang island, 5° 07' S
Heng shan, 'Transverse mountain'	Dempo (mountain), 4° 01' S
Ch'ih chüeh shan, 'Red Horn mountain'	Ulu Palik (mountain), 3° 34' S, 102° 20' E?
Pai sha, 'white sands'	Pagai (Pagi) islands, c. 2° 50' S
Sha t'ang chiao, 'Granulated Sugar rocks'	Siberut (island), c. 1° 25' S
Chiu hsü, 'nine islands'	Batu islands, c. 1° 16' S
Shuang hsü, 'Double islands'	Tanah Bala and Tanah Masa (islands), c. 1° 20' S?
Chin hsü, 'Gold island'	Pini (island), 1° 06' N?
Ch'en chiao, 'sunken rocks'	reefs between Nias (island) and Sumatra
Lung-ya-chia-erh chiang	Tapanuli bay, 1° 38' N
Lung-ya-chia-erh shan	Tombak Rantjang (mountain), 1° 42' N, 98° 48' E
Nan fu shan	Mansalar (island), 1° 40' N?
Liang san hsü	Nias (island), 1° 00' N
Pan-tsu	Barus (town), 2° 01' N, 98° 22' E ¹
Shih ch'eng shan	Simeulu (Simalur island), 2° 40' N
Yu jen chia, 'inhabited'	referring to Shih ch'eng shan
Ta Hsiao Hua mien, 'Big and Little Tattooed Faces'	Batak country; located in the vicinity of Rigaih bay, 4° 39' N
Yu jen chia, 'inhabited'	perhaps referring to Raja (Raya island), 4° 52' N
Pai t'u, ² 'White Earth'	Udjung Masam Muka, 5° 35' N, 95° 13' E
Hu wei chiao, 'Tiger Tail rock'	Rusa (island), 5° 17' N

Sailing directions

[The map contains no sailing directions. 'Shun-feng' (ff. 43-5) gives directions for voyages from Atjeh in Sumatra in Banten in Java, and we attempt a provisional explanation of the main stages. From A-ch'i [Atjeh, Kutaradja], 1 watch to Man-t'u mountain [Udjung Masam Muka, 5° 35' N, 95° 13' E], 39 watches to Mao-lü [Barus, 2° 01' N], 19 watches to K'u hsin man anchorage

¹ Arab 'Fansur'. Malay 'Panchur'.

² The reading 'Man-t'u' in 'Shun-feng' (f. 43) indicates that the Malay word *batu* (Atjehnese *bateë*), 'rock', is probably envisaged.

The Mao K'un Map

[Tiku, $0^{\circ} 23' S$], 3 watches to Chih ch'ü mien [Pariaman, $0^{\circ} 42' S$], 3 watches to Chia li tsai man [Padang, $0^{\circ} 57' S$], 11 watches to Chi li man [Inderapura, $2^{\circ} 04' S$], 14 watches to Fou-lü lo [Bengkulu, $3^{\circ} 47' S$], 19 watches to Chi li man hsü [Batu Ketjil island, $5^{\circ} 53' S$, $104^{\circ} 27' E$], 5 watches to Fou-lü wu hsü [Sebesi island in Sunda strait, $105^{\circ} 29' E$], 3 watches to Fou-lü shang hsiang [Sangian island, $105^{\circ} 50' E$], 4 watches to the great mountain of Shih-kung [Gedé mountain near Tandjung Sekong, $5^{\circ} 54' S$, $105^{\circ} 59' E$], thence to Pan-jang [Pandjang island, $5^{\circ} 55' S$] in Banten bay.

SECTION 9. THE EAST COAST OF SUMATRA¹

[From Section 7]

Identifications

<i>Transliteration or translation</i>	<i>Explanation</i>
Tan hsü	Pulau Sumur (islands), $5^{\circ} 51' S$ ²
Kuei hsü, 'Devil island'	Gezusters islets, c. $5^{\circ} 45' S$
Chu hsü	Mundu island, $5^{\circ} 40' S$
Tu-lu Pa-wang	Wai Tulang Bawang (river), mouth in $4^{\circ} 23' S$ ³
Hsia men, 'narrow strait'	the part of Bangka strait between Tandjung Tapa ($2^{\circ} 41' S$, $105^{\circ} 47' E$) in Sumatra and Tandjung Berani in Bangka ⁴
Kuei hsü, 'Tortoise island'	Tandjung Kait (Lucipara punt), $3^{\circ} 13' S$
San mai hsü	Maspari (Lucipara) island, $3^{\circ} 13' S$
Liang san chiao, 'Parasol rock'	Dapoer islets, $3^{\circ} 07' S$, $106^{\circ} 30' E$ ⁵

[Belitung group]

[North] Ma-li-shu ⁶	Belitung (Billiton) island, c. $2^{\circ} 52' S$, $108^{\circ} 00' E$
[East] Shih chiao, 'stone rock'	islands and reefs off the east coast of Belitung

¹ Ff. 15–16. See *Eastern Archipelago Pilot*, vol. IV. This section contains 26 place-names; the editor thinks that 25 are identified with reasonable certainty.

² See British Admiralty Chart 2056.

³ See British Admiralty Chart 2149.

⁴ The 'Narrow strait' was 10 watches from Menumbing and 7 watches from Maspari (Chang Hsieh, p. 121).

⁵ Presumably associated with Lama, a pyramidal hill 2 miles to the north.

⁶ For *shu* read *tung*.

Appendix 2

[<i>South</i>] Ma-la-wa hsü	Kebatu islet, 3° 48' S, 108° 04' E
[<i>West</i>] Sha ch'ien ch'u shui, 'above-water sand shoals'	Mendanau (2° 52' S) and other islands off the west coast
Tung chiang	Air Saleh (river), mouth in 105° 06' E ¹
Chiu chiang	Sungai Musi (Palembang river), mouth in 2° 20' S, 104° 55' E
Hsi chiang	Air Banjuasin (river), mouth in 104° 50' E
P'eng chia shan, 'Bangka mountain'	Menumbing (mountain), 2° 01' S, 105° 09' E
Kuan hsü	Berhala island, 0° 52' S, 104° 24' E
Chiu chiang	Palembang (town), 3° 00' S, 104° 45' E
Pai-pi chiang	Sungai Berbak, mouth in 1° 04' S, 104° 12' E
Lung ya men	a 'marginal note' referring to Singapore strait?
San fo hsü, 'Three Buddhas islands'	Alang Tiga islets, c. 0° 31' S, 104° 02' E
Ao yü shan, 'Scorpoena fish mountain'	Buaja island, 0° 10' N, 104° 13' E
Tung chi shan	Durai island, 0° 32' N, 103° 36' E
Kan-pa men, 'Kampar strait'	the channel between Sumatra and Onggut island, 0° 38' N
Kan-pa chiang, 'Kampar anchorage'	Sungai Kampar (river), mouth in 0° 27' N, 103° 09' E
Jen i chiao	Kundur island, c. 0° 45' N ²
Niu shih chiao, ³ 'Ox Dung rock'	Mendol island, c. 0° 38' N
Kuei hsü, 'Devil island'	Rangsang island, c. 1° 00' N

Sailing directions

[*The map contains no sailing directions. For the principal stages of the voyage see the Introduction, 1 (K), Cheng Ho's routes*]

¹ See British Admiralty Chart 2757.

² See British Admiralty Chart 1358.

³ The second character is indistinct; we adopt the reading of 'Shun-feng', ff. 53v, 54.

The Mao K'un Map

SECTION 10. MALACCA STRAIT¹

[From Section 9]

Identifications

<i>Transliteration or translation</i>	<i>Explanation</i>
P'i-sung hsü	Pulau Pisang, 1° 28' N, 103° 15' E ²
She chien shan	Bukit Banang, 1° 48' N
Man-la-chia	Malacca, 2° 12' N
Kuan ch'ang, 'official station'	at Malacca
Chia wu hsü, 'False Five islands'	Cape Rachado, 2° 24' N
Chi ku hsü, 'Chicken Bone islands'	Aruah (Aroa, Aru) islands, 2° 53' N, 100° 34' E
Mien hua hsü, 'Cotton island'	Bukit Jugra (Parcellar), 2° 51' N
Mien hua ch'ien, ³ 'Cotton shoals'	Amazon Maru shoal, 2° 51' N, 101° 00' E
Chi-ling chiang, 'Klang anchorage'	Sungei Klang estuary, 3° 00' N
Chi-na-ta shan	Bukit Cherakah (False Parcellar), 3° 14' N, 101° 23' E
Shuang hsü, 'double islands'	the Brothers, c. 3° 23' N, 99° 44' E
Chiu chou, 'nine islets'	Sembilan [Nine] islands, c. 4° 01' N, 100° 33' E ⁴
Ch'en kung hsü	Pulau Jarak, 3° 58' N, 100° 05' E
Pin-lang hsü	Pulau Pinang (Penang), 5° 23' N
Ya-lu	Deli district (Sumatra), c. 3° 47' N
Tan hsü, 'single island'	Berhala island, 3° 46' N
Chi-ta chiang, 'Kedah anchorage'	Sungei Merbok (Malaya), mouth in 5° 40' N
Lung-ya-chiao-i	Pulau Langkawi (Malaya), 6° 24' N ⁵
Kan-pei chiang	Kumpai roadstead (Sumatra), 4° 11' N
Ku-li-yu Pu-tung	Pulau Butang (Malaya), 6° 32' N
Tu-kua t'ou shan, 'Takwa Head mountain'	Hlaem Phra chao (Thailand), 7° 44' N

¹ Ff. 16-18v. See the *Malacca Strait Pilot*. This section contains 27 place-names; the editor thinks that all are identified with reasonable certainty.

² See British Admiralty Chart 1358.

³ A translation of the Cham *kapah* or Malay or Hindustani *kapas*, 'cotton'; called Kafasi by the Arabs, Capasia by the Portuguese, Capacia by the Italians, and Capaciar by the French.

⁴ See British Admiralty Chart 1353.

⁵ See British Admiralty Chart 830.

Appendix 2

Pa-lu t'ou, 'Pa-lu head'	Udjung Peureula (Sumatra), 4° 54' N ¹
Chi shui wan ²	Udjung Djambuaie (Diamond point), 5° 15' N, 97° 30' E ³
Su-men-ta-la	'Semudera', town about 5 miles up the Krueng Pasai, mouth in 97° 13' E
Kuan ch'ang, 'official station'	at Semudera
P'ing feng shan	Seulawaih Agam mountain, 5° 26' N, 95° 39' E
Nan-wu-hsing ⁴	Sigli (Pedir), 5° 23' N, 95° 57' E
Mao shan	Poulo Weh (island), 5° 54' N, 95° 13' E
Lung hsien hsü	Poulo Rondo (island), 6° 04' N, 95° 07' E

Sailing directions

A [From Kuala Pasai to Poulo Rondo] [f. 17v] 'The ship starts from Su-men-ta-la [Kuala Pasai, 97° 13' E]; steer 315°-300°; after 12 watches the ship is level with [f. 18] Lung hsien hsü [Poulo Rondo, 95° 07' E].'

[For the voyage from Poulo Rondo to Ceylon see Section 13, Ceylon]

B [From Kuala Pasai to Little Karimun Island] [f. 17v] 'The ship starts from Su-men-ta-la [Kuala Pasai, 97° 13' E]; steer 30°-45° and [then] 105°-120°; after 5 watches the ship is level with Chi shui wan [Udjung Djambuaie, 5° 15' N, 97° 30' E], [and then] Pa-lu [f. 17] t'ou [Udjung Peureula, 4° 54' N];⁵ there are shoals. Steer 120°-135°; after 5 watches the ship makes Kan-pei Chiang [Kumpai roadstead, 4° 11' N]. Steer 120°-135°; after 15 watches the ship is level with Ya-lu [Deli river, 3° 47' N].⁶ Steer 105°-120°; [f. 16v] after 5 watches the ship makes Tan hsü [Berhala island, 3° 46' N]. [f. 17] Again steer 120°-135°; after 4 watches the ship makes Shuang hsü [the Brothers, c. 3° 23' N]. Steer exactly 135° and [then] 120° [f. 16v] -135°; after 15 watches the ship makes Chi ku hsü [Aruah islands, 2° 53' N].⁷ After making Chi ku hsü, steer exactly 120° and [then] 120°-105°; after 3 watches the ship is level with Mien hua ch'ien [Amazon Maru shoal, 2° 51' N]. Steer 105°-120° and [then] exactly 120°; [f. 16] after 3 watches

¹ See British Admiralty Chart 2777.

² Properly Chi shui wan t'ou, 'Swift Water Bay head'.

³ This and the remaining places in this section are in or near Sumatra.

⁴ Read Nan-wu-li, 'Lamuri'.

⁵ The voyage from Udjung Djambuaie took 5 watches (Chang Hsieh, p. 122).

⁶ Shih Yung-t'u has 5 watches from this voyage of 34 miles.

⁷ Shih Yung-t'u has 5 watches for this voyage of 53 miles.

The Mao K'un Map

[f. 16v] the ship is level with Mien hua ch'ien [read Mien hua hsü, 'Cotton island', Bukit Jugra, 2° 51' N]. Steer 120°–135°; [f. 16] after 10 watches the ship is level with Man-la-chia [Malacca, 2° 12' N]. The ship starts from Man-la-chia; steer 120°–135°; after 5 watches the ship is level with She chien shan [Bukit Banang, 1° 48' N]. Steer 120°–135°; after 3 watches the ship is level with P'i-sung hsü [Pulau Pisang, 1° 28' N]. Steer exactly 135°, and make Chi-li [read Chi-li-men, Little Karimun island, 1° 08' N].¹

SECTION 11. THE WEST COAST OF THAILAND AND BURMA WITH THE NICOBAR AND ANDAMAN ISLANDS²

[From Section 10]

Identifications

<i>Transliteration or translation</i>	<i>Explanation</i>
Ta-na-ssu-li	Tenasserim village, 12° 06' N, 98° 51' E ³
Pei Hsien	northern Thailand (inland)
Ta-na-ssu-li	Tenasserim island, 12° 34' N
Ta-wai	Tavoy town, 14° 04' N, 98° 11' E
Ta-wai hsü	Tavoy island, 13° 06' N
Ta-wai shan	Tavoy point, 13° 32' N
Pa-tu-ma	Martaban town, 16° 31' N
Chu p'ai chiao, 'Bamboo Tablet rock'	Green island, 16° 04' N, 97° 33' E?
K'o-tieh-mi	Hainggyi Kyun (island), 94° 19' E ⁴
Ma ch'uan chiao, 'Horse Ship rock'	Diamond island, 94° 15' E
Ma wang shan	Cape Negrais, 16° 03' N? ⁵
Ta Mo shan	Cheduba island, c. 18° 46' N?
Hsiao Mo shan	Ramree island, c. 19° 06' N?
Lo-k'eng shan	Myengun Kyun (island), c. 19° 54' N
Lo-k'eng	Arakan (town), 20° 33' N, 93° 03' E
Kuei t'ou shan, 'Tortoise Head mountain'	Elephant point, 21° 12' N

¹ The voyage from Pulau Pisang took 3 watches ('Shun-feng', f. 26).

² Ff. 17v–19. See the *Bay of Bengal Pilot* (8th ed., London, 1953). This section contains 22 place-names; the editor thinks that 17 are identified with reasonable certainty.

³ See British Admiralty Chart 830 and Gerini, pp. 425–7.

⁴ At the mouth of the Bassein river. K'o-tieh-mi is the 'Cosmi' or 'Cosmin' of mediaeval writers; see Yule and Burnell, under 'Cosmin', p. 259a.

⁵ See British Admiralty Chart 829.

Appendix 2

Ch'ih t'u shan, 'Red Earth mountain'	South cliff, 21° 20' N ¹
Mu k'o chiang	Baghkhali river, mouth in 21° 31' N ²

[Nicobar and Andaman islands]

Ts'ui lan hsü	Nicobar islands (Great Nicobar, c. 6° 50' N)
Chin hsü, 'Golden island'	Car Nicobar, c. 9° 09' N
Pei p'ing t'ou shan, 'North Level-Head mountain'	Little Andaman, c. 10° 41' N
An-te-man shan	Andaman islands (Middle Andaman, c. 12° 40' N)

Sailing directions

[The map contains no sailing directions for this coast. The 'Shun-feng' (f. 46) gives the stages for the journey from Kuala Pasai to Chittagong, and we attempt a provisional explanation. From Kuala Pasai, 12 watches to Ch'ieh-nan-mao shan [Poulo Weh], 45 watches to the 'southern head mountain' of An-te-man [Mount Mayo, 11° 23' N, on Rutland island], 12 watches to P'ing chung chien [Saddle hill, 13° 09' N, on North Andaman island], 50 watches to Ch'ih t'u shan [South cliff, 21° 20' N, on the coast of Burma], 5 watches to Jang-lieh-tang head [Patenga point, 22° 13' N, associated with 'Jaldia' hill], near Ch'a-ti-chiang [Chittagong].

SECTION 12. THE COASTS OF EAST AND WEST BENGAL AND THE EAST COAST OF INDIA²

[From Section 11]

Identifications

<i>Transliteration or translation</i>	<i>Explanation</i>
Sa-ti-chiang	Chittagong town, 22° 20' N ³
Chiu kuan jen ch'ien, 'Nine Officials shoals'	Sandwip island, c. 91° 30' E ⁴

¹ No doubt the 'red cliffs' reached after 5 watches' travelling (that is, about 55 miles) from the Karnaphuli river estuary; see *Bay of Bengal Pilot*, p. 263.

² Ff. 19-20; here the diagrammatic presentation breaks down, and no part of the coast-line is shown on f. 19 v. This section contains 18 place-names; the editor thinks that 14 are identified with reasonable certainty.

³ See *Bay of Bengal Pilot* and British Admiralty Chart 829; Lavanha's map of Bengal (Dames, vol. II, facing p. 135); Beames, p. 136, map. In the rendering (Sa-ti-chiang) of the Indian name, the sound of the character *chiang* (Amoy, *kang*), 'anchorage', is incorporated in the pronunciation of the place-name.

⁴ The 'shoals' have now coagulated into an island.

The Mao K'un Map

Pang-ko-la	Bengal
Hsin-la-kao-an	Sonargaon town, c. 23° 43' N, 90° 38' E ¹
Po-lo-kao-an	Barguna village, 22° 09' N, 90° 08' E ²
Che-ti-hsi-an ²	Satgaon town, c. 23° 12' N, 88° 28' E ³
Wu-li-she ch'eng, 'Orissa city'	Cuttack town, 20° 25' N, 85° 57' E
P'ang-pu Pa-tan, 'Patana in Poorub' ⁴	Patna town, 25° 35' N, 85° 18' E ²
Wu-li-she t'a, 'Orissa pagoda'	Puri town, 19° 48' N ⁵
Ku-pa-tan	Manikpatna town, 19° 43' N, 85° 28' E
Fo ssu tung	Sonnapurampeta town, 19° 08' N ²
Chia-ning-pa-tan	Kalingapatam town, 18° 20' N
Lung-ya-ko	Langulya river, mouth in 18° 13' N ²
Chü-li-tu-li	Srikakulam (Chicacole) town, 18° 18' N
Sha-li-pa-tan	Masulipatam town, 16° 11' N ⁶
Mai-lieh-pu	Mailapur (San Thomé) town, 13° 02' N (now a suburb of Madras)
Chih-lan	Chidambaram (Chilambaram) town, 11° 23' N
I ch'eng, ⁷ 'I city'	Old Kayal (Cael) town, 8° 39' N ⁸

Sailing directions

[The map contains no sailing directions for these coasts; nor have we found any in other works]

[Huang Sheng-tseng (*Hsi-yang ch'ao-kung tien-lu*, ch. 2, ff. 7-7v) records an interesting itinerary from Bengal to Male island, which we paraphrase and summarize. From Bengal the navigator descends to latitudes where the altitude

¹ About 12 miles east of Dacca.

² For *hsi* read *kao*.

³ About 6 miles north of Hooghly.

⁴ 'Poorub' usually meant Oudh, the Benares division, and Bihar (Yule and Burnell, under 'Poorub', p. 724a).

⁵ The site of the famous temple of Jagannath.

⁶ See British Admiralty Chart 828.

⁷ For *I* read *Chia-i*, as in Shih Yung-t'u.

⁸ The ruins of old Kayal are now to be found about 2 miles from the mouth of the Tambrapani river.

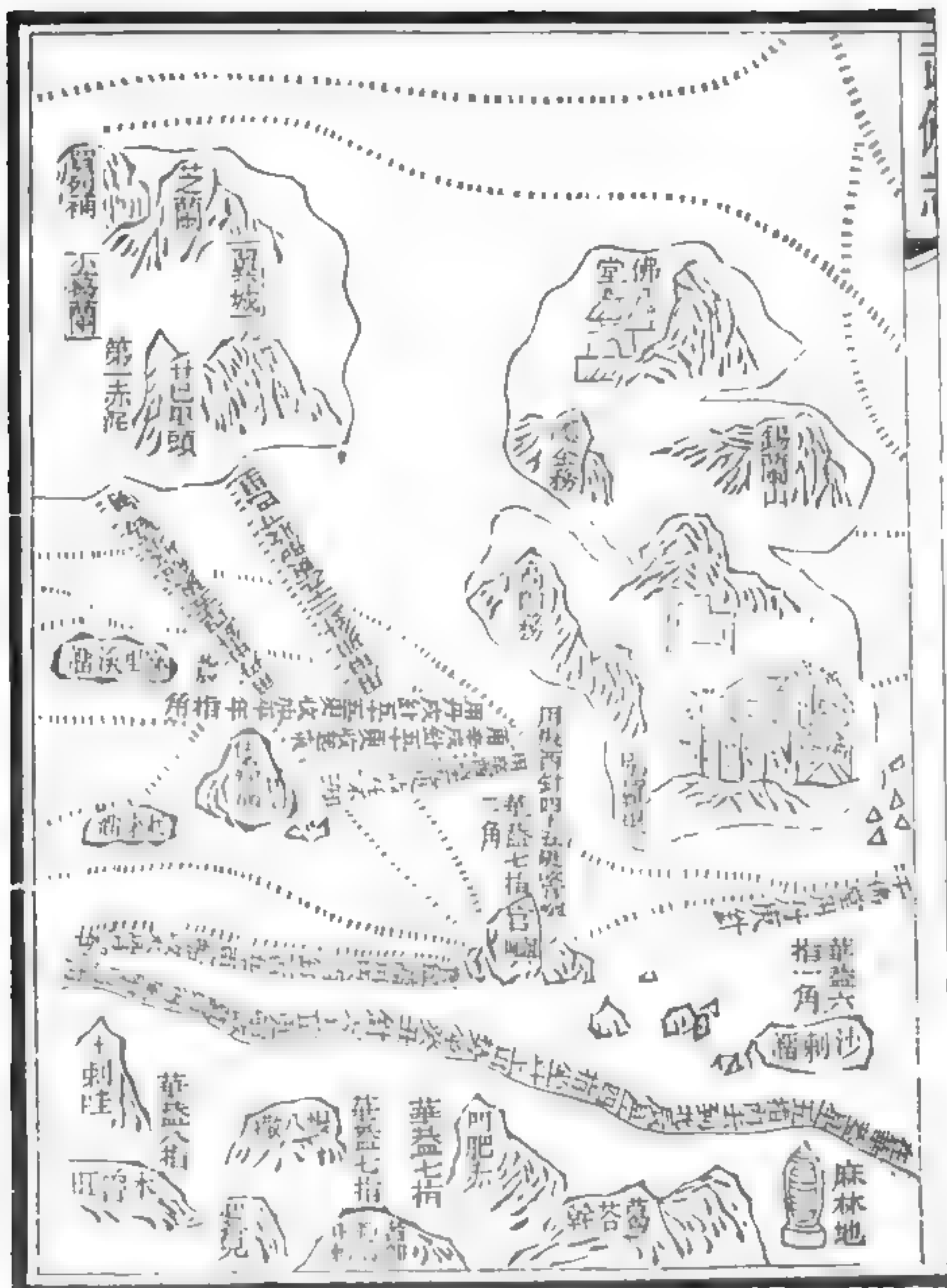


Fig. 5. The Mao K'un Map, folio 19v. This folio of 'a patchwork of maplets, the Maldives, and East Africa. Some

The Mao K'un Map



each having its own orientation and scale', shows portions of India, Ceylon, wrong readings have been corrected. The scales are approximate

Appendix 2

of Polaris is, successively, $4\frac{1}{2}$ fingers, $3\frac{1}{2}$ fingers, $2\frac{3}{8}$ fingers, $2\frac{1}{8}$ fingers, $1\frac{7}{8}$ fingers, and $1\frac{3}{4}$ fingers;¹ then he passes Ying ko tsui mountain [Nemunakuli in Ceylon]; after 5 watches he sees T'ieh chen island [Great Basses reef]; after another 7 watches he sees Fo she tso mountain [Dondra head]; after another 5 watches he sees the mountain of Ya-li [Galle]; whence he travels to Kuan hsü [Male island in the Maldives].

SECTION 13. CEYLON²

[From Section 12]

Identifications

Transliteration or translation	Explanation
[On the west coast]	
Pieh-lo-li, 'Berberyn'	Beruwala town, 6° 28' N ³
Kao-chi-wu ⁴	Colombo town, 6° 56' N
Li-chin-wu	Negombo town, 7° 12' N
[On the north coast]	
Fo-t'ang, 'Buddha hall'	Point Pedro, 9° 50' N
[On the east coast]	
Hsi-lan shan	Ceylon (island) ⁵
[On the south coast]	
Fo t'ang, 'Buddha hall'	Dondra head, 5° 55' N, 80° 36' E
[Off the south-east coast]	
Chu p'ai chiao, 'Bamboo Tablet rocks'	Great Basses ridge, c. 6° 09' N, 81° 24' E

Sailing directions

A [From Poulo Rondo to Ceylon]

(i) [f. 18] 'The ship starts from Lung hsien hsü [Poulo Rondo] and crosses the ocean. Steer exactly 285° [f. 18v] for 40 watches; the ship again steers 285°-270° for 50 watches; [then] the ship sees Hsi-lan shan [Ceylon].'

¹ Huang gives the altitude in terms of a *chih* (finger) and a *chueh* (a quarter of a finger); 1 finger equalled 1° 36' 25", so that $1\frac{3}{4}$ fingers equalled 2° 48'; and since Polaris was then about 3° 30' from the Pole, the latitude was about 6° 18', off the south-east coast of Ceylon.

² Ff. 19-19v. This section contains 7 place-names; the editor thinks that all can be identified with reasonable certainty. Ssu-lung liu (f. 19) is excluded, since the star-altitude shows that it belonged to the Maldivian islands.

³ See *Bay of Bengal Pilot* and the *West Coast of India Pilot* (10th ed., London, 1961); also British Admiralty Charts 828 and 813.

⁴ Read Kao-lang-wu.

⁵ *Ming shih*, p. 7921, row 1. The name Hsi-lan shan, 'Ceylon mountains', was sometimes applied to Adam's Peak.

The Mao K'un Map

(ii) [f. 18] 'The ship starts from Lung hsien hsü [Poulo Rondo] during a favourable month; steer 285° – 300° ; after 10 [f. 18v] watches the ship sees Ts'ui lan hsü [Nicobar islands]. Steer exactly 285° for 30 watches; [then] the ship steers 285° – 270° for 50 watches, and the ship sees Hsi-lan [f. 19] shan [Ceylon].' [See Appendix 5, *The voyage from Kuala Pasai to Beruwala*.]

B [*From Dondra head to Male island*] [f. 19v] 'From Fo t'ang [Dondra head] steer exactly 255° .'

C [*From Beruwala to Male island*] [f. 19v] 'Steer 255° – 270° ; after 45 watches make Kuan hsü [Male island].'

D [*From Beruwala to Fadiffolu atoll*] [f. 19v] 'Steer 285° – 270° ; after 45 watches make Jen-pu-chih [Fadiffolu atoll].'

E [*From Beruwala to Kelai island*] [f. 19v] 'Steer 285° – 300° ; after 50 watches make Ch'i-lai [Kelai island].'

F [*From Beruwala to Kalpeni atoll*] [f. 19v] 'Steer exactly 300° ; after 55 watches make Chia-p'ing-nien [Kalpeni atoll].'

SECTION 14. THE MALDIVE AND LACCADIVE ISLANDS¹

[*From Section 13*]

Identifications

<i>Transliteration or translation</i>	<i>Explanation</i>
Ssu-lung liu	Haddummati atoll (Isdu island, $2^{\circ} 07' N$), in the Maldive group ²
Hua kai, 5 fingers 2 quarters	equals $2^{\circ} 24' S$
Sha-la liu	Mulaku atoll (Mulaku island, $2^{\circ} 57' N$)
Hua kai, 6 fingers 1 quarter	equals $1^{\circ} 12' S$
Kuan hsü, 'Official island'	Male or Sultan's island, $4^{\circ} 10' N$
Hua kai, 7 fingers 2 quarters	equals $0^{\circ} 48' N$
Jen-pu-chih liu	Fadiffolu atoll, c. $5^{\circ} 24' N$ ³

¹ Ff. 19–20. This section contains 9 place-names; the editor thinks that 8 are identified with reasonable certainty.

² See *West Coast of India Pilot* and British Admiralty Charts 66b, 66c, and 827. The altitudes given in this section may be compared with those given in the *Muhit* (Ferrand, *Textes*, vol. II, pp. 528–35). As explained, 'liu' is 'diu', 'island', and, to find the latitude, we must add $3^{\circ} 30'$ to the altitude of Polaris (Pei ch'en).

³ See British Admiralty Chart 66a. We equate 'Jen-pu-chih' (Amoy, 'Jim-put-ti') with the 'Gubati' of the *Muhit*.

Appendix 2

Ch'i-lai liu	Tiladummati atoll (Kelai island, 6° 58' N)
Ma-li-ch'i liu	Minicoy island, 8° 16' N ¹
Pei ch'en, 2 fingers 1 quarter	equals 3° 36' N
Chia-p'ing-nien liu	Kalpeni atoll (Kalpeni island, 10° 04' N)
Pei ch'en, 1 finger ²	equals 1° 36' N
Chia-chia liu	Sacrifice rock, 11° 30' N? ³
An-tu-li liu	Androth island, 10° 49' N
Pei ch'en, 4 fingers	equals 6° 25' N

Sailing directions

A [*From Male island to Cape Comorin*] [f. 19v] 'Steer 75°-90°; after 29 watches the ship makes Kan-pa-li [Cape Comorin].'

B [*From Male island to Quilon*] [f. 19v] 'Steer exactly 75°; after 45 watches the ship makes Hsiao Ko-lan [Quilon].'

C [*From Male island to Mogadishu*] [f. 19v] 'From Kuan hsü liu [Male island], steer 255°-270°; after 150 watches the ship makes Mu-ku-tu [Mu-ku-tu-shu, Mogadishu].'

D [*From Minicoy to Cochin*] [f. 20] '[Steer] 60°; after 25 watches you make Ko-chih [Cochin].'

E [*From Minicoy to Calicut*] [f. 20] '[Steer] 60°; after 50 watches the ship makes the country of Ku-li [Calicut].'

F [*From Kalpeni to Cochin*] [f. 20] 'Steer 105°-90°; after 25 watches you reach the country of Ko-chih [Cochin].'

G [*From Kalpeni to Calicut*] [f. 20] 'Steer 75°-90°; after 28 watches the ship reaches the country of Ku-li [Calicut].'

H [*From Androth to Calicut*] [f. 20] 'Steer 90°; after 15 watches you make the country of Ku-li [Calicut].'

I [*From Androth to Sacrifice rock?*] [f. 20] 'Steer 90°; after 16 watches you make Chia-chia Liu [Sacrifice rock?].'

¹ This and the remaining places in this section are generally regarded as part of the Laccadive group.

² Probably a mistake for '3 fingers', the reading of the *Muhit*, and of Shih Yung-t'u.

³ We regard this as referring to the same place as Ha-ha Tieh-wei in section 15.

The Mao K'un Map

SECTION 15. THE WEST COAST OF INDIA¹

[From Section 13]

Identifications

Transliteration or translation

Explanation

Kan-pa-li t'ou	Cape Comorin, 8° 05' N, 77° 33' E ²
Tai i ch'ih ni, 'the first red earth' (or, 'first quality red clay')	the red table-land about 4 miles north of Anjengo, 8° 40' N?
Hsiao Ko-lan	Quilon town, 8° 53' N
Tuan chih man	Alleppey town, 9° 30' N?
Ko-chih kuo	Cochin town, 9° 58' N
3 fingers 1 quarter	equals 5° 13' N
Ku-li kuo	Calicut town, 11° 15' N ³
4 fingers	equals 6° 25' N
Fan-ta-li-na	(Fandarina, Pamdaranj) Kollam village, 11° 27' N ⁴
Pai chiao, 'white rock'	Sacrifice rock? ⁵
Ha-ha Tieh-wei	('Kaka Diwa') Sacrifice rock, 11° 30' N? ⁶
4 fingers 1 quarter	equals 6° 49' N
P'en-na-lu	Kadalur point, 11° 27' N?
Shih-te-fa-nan ⁷	(Budfatan) Puthupatanam village, 11° 33' N
Hsieh-li	(Hili) Mount Delly, 12° 02' N
4 fingers 2 quarters	equals 7° 13' N
Mang-ko-nu-erh	Mangalore town, 12° 50' N
5 fingers	equals 8° 02' N

¹ Ff. 19v-21. This section contains 25 place-names; the editor thinks that 20 are identified with reasonable certainty.

² See *West Coast of India Pilot* and British Admiralty Chart 827.

³ See British Admiralty Chart 747.

⁴ See Yule and Burnell, under 'Pandarani', p. 666b; Cortesão, vol. 1, p. 74; Ayyar, p. 291 and map.

⁵ The editor regards this as a 'marginal note' relating to Ha-ha Tieh-wei (following).

⁶ See p. 148, n. 2 on Chia-chia liu, one of Ma Huan's 'Liu mountains'.

⁷ Read Pu-te-fa-t'an. On the north bank of the Murat (Kotta) river. See Dames, vol. 11, p. 85, n. 1; Ayyar, p. 291 and map.

Appendix 2

A-che-tiao 6 fingers	Anjidiv island, 14° 45' N ¹ equals 9° 38' N
Ch'an-ta-wu-erh 6 fingers 2 quarters	Goa town, 15° 30' N ² equals 10° 26' N
P'o-erh-ya 6 fingers	Boria headland ³ equals 9° 38' N
Po-erh-ya 8 fingers	Boria headland, 17° 23' N ⁴ equals 12° 51' N
Ch'i-erh-mo-erh 8 fingers	(Jaimur) Chaul town, 18° 33' N ⁵ equals 12° 51' N
Ma-ha-yin 9 fingers	Mahim town, 19° 37' N equals 14° 27' N
Ma-lou 10 fingers	Broach town, 21° 43' N ⁶ equals 16° 04' N
K'an-pa-yeh ch'eng 11 fingers	Cambay town, 22° 19' N ⁷ equals 17° 40' N
Tiao-yüan	Diu town, 20° 43' N ⁸
Tsa-ko-te 12 fingers	(Jaquete) Dwarka town, 22° 14' N ⁹ equals 19° 17' N
Hsin-te } Tieh-yü-li }	joint port of Sindi and Dewal, c. 24° 29' N, 67° 37' E ¹⁰

Sailing directions

A [*From Goa to Calicut?*] [f. 20] 'Steer exactly 105°; after 28 watches make the country of Ku-li [Calicut].'

B [*From Mangalore to Kalhat*] [f. 20v] 'Steer exactly 300° for 85 watches;

¹ See British Admiralty Chart 744.

² See British Admiralty Chart 826. Ch'an-ta-wu-erh is the Gowa Sindabur of Sidi Ali (Ferrand, *Textes*, vol. II, p. 523). See also Yule and Burnell, under 'Goa', p. 379a, and under 'Sindabur', p. 837b.

³ We regard this as a 'marginal note' referring to the next entry.

⁴ See British Admiralty Chart 739.

⁵ See British Admiralty Chart 826. See Yule and Burnell, under 'Choul', p. 210b. The reading should probably be '8 fingers 3 quarters', as for Sidi Ali's 'Sayul' (Ferrand, *Textes*, vol. II, p. 519).

⁶ See Yule and Burnell, under 'Broach', p. 116a.

⁷ See Yule and Burnell, under 'Cambay', p. 150a.

⁸ See Yule and Burnell, under 'Diu', p. 319b.

⁹ See Yule and Burnell, under 'Jacquete', p. 444b.

¹⁰ The ruins lie about 20 miles south-west of Thatta. See Yule and Burnell, under 'Diul-Sind', p. 320a, and Dames, vol. I, p. 105, n. 2.

The Mao K'un Map

again, steer 285° – 300° for 40 watches; the ship makes Chia-la-ha [Kalhat, $22^{\circ} 42' N$, in Arabia].'

C [From *Anjidiv island to Kalhat*] [f. 20v] 'Steer 285° – 300° ; after 100 watches the ship makes Chia-la-ha [Kalhat].'

'Steer exactly 300° ; after 120 watches the ship makes Chia-la-ha [Kalhat].'

D [From *Goa to Kalhat*] [f. 20v] 'Steer 285° – 270° ; after 87 watches the ship makes Chia-la-ha [Kalhat].'

E [From (uncorrected) latitude $15^{\circ} 16' N$ to *Ras Masandam*] [f. 21] '[When the altitude of Pei ch'en is] 9 fingers 2 quarters, steer exactly 285° ; after 166 watches the ship makes Tu-li Ma-hsin-fu¹ [Tell Masandam, $26^{\circ} 23' N$, in Arabia].'

F [From (uncorrected) latitude $16^{\circ} 04' N$ towards *Arabia*] [f. 21] 'The angle is 10 fingers [$16^{\circ} 04' N$]; at 10 fingers mountains appear; when you travel to [the latitude where the altitude of Pei ch'en is] 12 fingers, the Wu shih chi [unidentified star] sets. The direction is not quite 300° .'

[The 'Shun-feng' (f. 47v) contains the following direction: From *Ku-li* [Calicut, $11^{\circ} 15' N$], 5 watches to *Pai chiao* [Sacrifice rock, $11^{\circ} 30' N$]; 45 watches to *Ting-te-pa-hsi* ['Dandabasi', Deogarh harbour, $16^{\circ} 23' N$]; thence to *Arabia*].

SECTION 16. THE COASTS OF BALUCHISTAN AND PERSIA²

[From Section 15]

Identifications

<i>Transliteration or translation</i>	<i>Explanation</i>
Ch'ien fo ch'i, fan ming Sa hsi ling, 'Thousand Buddhas stream, foreign name Sa hsi ling' 8 days' travelling from K'an-pa-yeh [Cambay]	Hor Batt gorge, $25^{\circ} 20' N$, $65^{\circ} 07' E$ ³
K'o-shih	(Kech-Mukran) Kej (Kech) district in Baluchistan, and Makran (Mukran) coast, c. $25^{\circ} 19' N$, 63° to $64^{\circ} E$ equals $20^{\circ} 53' N$
Mu-k'o-lang	
13 fingers	

¹ We read *tang* for *fu*.

² Ff. 21–2. This section contains 11 place-names; the editor thinks that 8 are identified with reasonable certainty.

³ See the *Persian Gulf Pilot* (10th ed., London, 1955), and British Admiralty Chart 38.

Appendix 2

Pa-ssu-ni	Pasni town, 25° 16' N, 63° 28' E
K'o-wa-ta-erh	Gwadar town, 62° 19' E
K'o-wa-ta-erh	Gwatar village, 61° 30' E
Ch'a-shih	Jask village, 57° 46' E ¹
K'u-ssu-ta-erh	Kuhistak village, 57° 01' E
K'u-lu-ma-la	Minab town, 27° 09' N, 57° 05' E?
Hu-lu-mo-ssu	Jazireh Hormuz (island), c. 27° 03' N, 56° 27' E
Chia Hu-lu-mo-ssu, 'False Hormuz'	Qishm island, c. 26° 48' N, 55° 53' E?
La-erh-k'o-shu	Jazireh Larak (island), c. 26° 51' N, 56° 21' E

Sailing directions

[The map contains no sailing directions for these coasts; nor has the editor found any in other works]

SECTION 17. THE COASTS OF ARABIA²

[From Section 16]

Identifications

<i>Transliteration or translation</i>	<i>Explanation</i>
[The east coast]	
Sa-la-mo hsü, 'Salama island'	As Salama, Great Quoin, 26° 30' N ³
Ya shu tsai chi hsü ⁴	Daimaniyat islands, 23° 51' N ⁵
Kuei hsü, 'Tortoise island'	Fahl islet, 23° 41' N
Ma-shih-chi ⁶	Muscat town, 23° 38' N
you see Pei ch'en [at] 12 fingers	equals 19° 17' N
Ku-li-ya	Quraiyat village, 23° 16' N
Tieh-wei,	Tiwi village, 22° 49' N

¹ See British Admiralty Chart 753.

² Ff. 20v-22. This section contains 13 place-names; the editor thinks that 12 are identified with reasonable certainty.

³ See *Persian Gulf Pilot* and British Admiralty Chart 753.

⁴ Shih Yung-t'u reads 'Hsi shu tsai mo hsu', and 'Shun-feng' has 'Ya la shih chi hsü'. The name is unexplained.

⁵ See British Admiralty Chart 2851.

⁶ Cantonese, 'Ma-shet-ket'.

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[The south coast]

Ta wan, 'Great bay'	Gulf of Masira; northern entrance 20° 09' N, southern entrance 19° 00' N ¹
Pei ch'en, 9 fingers 2 quarters	equals 15° 16' N
A-hu-na	Ras al Madraka, 19° 00' N, 57° 51' E? ²
Pei ch'en, 9 fingers	equals 14° 27' N
Tsu-fa-erh	(Dhufar) Al-Mansura town (name obsolete) 17° 00' N, 54° 06' E ³
Pei ch'en, 8 fingers	equals 12° 51' N
Shih-li-erh	Ash Shihr town, 14° 45' N, 49° 34' E
Pei ch'en, 6 fingers	equals 9° 38' N
La-sa	La'sa village, c. 49° 04' E ⁴
A-tan	Aden town, 12° 47' N, 44° 59' E
Pei ch'en, 5 fingers	equals 8° 02' N

[The west coast]

Lo-fa	Luhaiya town, 15° 42' N ⁵
Pei ch'en, 7 fingers	equals 11° 14' N

Sailing directions

[From (uncorrected) 10° 26' N (near Ras Fartak) to (uncorrected) 21° 41' N (near As Salama)] [f. 20v] 'Again, when you are in [a latitude where the altitude of Pei ch'en is] 6 fingers 2 quarters [(uncorrected) 10° 26' N], there will be mountains [Fartak range] to landward.' [f. 21] 'Take a bearing and set your course on the Pu ssu star [Beta of Pegasus?];⁶ steer exactly 45°; [travelling from the latitude where the altitude of Pei ch'en is] 10 fingers [(uncorrected) 16° 04' N] to [the latitude where it is] 11 fingers [(uncorrected) 17° 40' N], set [this course and] keep the ship on it.'—[f. 21v] 'The angle.

¹ See *Red Sea and Gulf of Aden Pilot* and British Admiralty Chart 3785.

² The Pei ch'en altitude indicates a place lying 48 miles south of the 'Great bay'; while the name A-hu-na suggests identification with Behaim's 'Onganon' (Organon); which, however, has been identified with Masira island situated north of the northern entrance to the Gulf of Masira.

³ See British Admiralty Chart 3784. The ruins of the town are situated at the place now called Al-Balad (Al-Bilad), about 2 miles east of Salala (Gibb, *The Travels*, vol. II, p. 382, n. 71).

⁴ See British Admiralty Chart 6, and below, appendix 7, the location of La-sa.

⁵ See British Admiralty Chart 748b

⁶ See appendix 6, Four stellar diagrams.

Appendix 2

When you are travelling to [the latitude where the altitude of Pei ch'en is] 12 fingers [(uncorrected) $19^{\circ} 17' N$], set a course of 315° – 330° . The Hsiao tou star [in Hercules?] sets. Again, when you are in [the latitude where] the angle [of Pei ch'en is] 12 fingers and are travelling to [the latitude where it is] 12 fingers 2 quarters [(uncorrected) $20^{\circ} 05' N$], set a course of exactly 315° . The Pu ssu star [Formalhaut?] sets. Again, [f. 22] travel to [the latitude where] the angle [of Pei ch'en is] 12 fingers.¹ Travelling to [the latitude where the altitude of Pei ch'en is] 13 fingers 2 quarters [(uncorrected) $21^{\circ} 41' N$], set a course due north.²

[We take the following details from the sailing directions in 'Shun-feng':

A [From Deogarh harbour to Hormuz] [ff. 47v–48] From Deogarh [$73^{\circ} 23' E$ in India] the navigator sails for 100 watches to Sha ku ma mountain [Jabal Quraiyat, $23^{\circ} 10' N$, $58^{\circ} 44' E$, in Arabia]; 5 watches to Ma-li-shih-chi [Muscat, $23^{\circ} 38' N$]; [1 watch] to Kuei mountain [Fahl islet, $23^{\circ} 41' N$]; 4 watches to Ya la shih chi mountain [Daimaniyat islands, $23^{\circ} 51' N$]; 25 watches to Sha-la-mo mountain [As Salama, Great Quoin, $26^{\circ} 30' N$]; 5 watches to Hu-lu-mo-ssu [Hormuz, $27^{\circ} 03' N$], where the altitude of Pei ch'en [Polaris] is 14 fingers [(uncorrected) $22^{\circ} 29' N$], and that of Teng lung [Crux] is $1\frac{1}{2}$ fingers.

B [From Mangalore to Dhufar] [ff. 49–49v] The navigator steers 285° – 300° ; after 50 watches he changes course to 285° ; after 70 watches he reached Dhufar [$54^{\circ} 06' E$]³

C [From Mangalore to Aden] [f. 48v] The navigator steers 285° – 270° for 125 watches, until he is level with Chih chiao t'a na mountain [Ras al Kalb, $48^{\circ} 40' E$, in Arabia?]; thence to T'a pa li fu mountain [Balihaf, $48^{\circ} 10' E$?]; thence he steers 225° , and after 20 watches reaches Aden [$44^{\circ} 59' E$]

D [From Aden to Mangalore] [f. 49] The navigator steers 45° – 60° for 30 watches until he is level with Nai-chia-ni [Mukalla, $49^{\circ} 07' E$?]; he then steers 75° – 60° for 30 watches until level with Fa-ta-la mountain bill [Ras Fartak, $52^{\circ} 16' E$]; thence he steers 90° until he reaches Mangalore [$74^{\circ} 50' E$].

¹ The reading should probably be '13 fingers' [(uncorrected) $20^{\circ} 53' N$].

² The Chinese text is corrupt, and the rendering tentative.

³ The change of course in mid-ocean implies that he thought he knew his longitude.

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SECTION 18. THE EAST COAST OF AFRICA¹

[From Section 17]

Identifications

<i>Transliteration or translation</i>	<i>Explanation</i>
Hsü to, a large island; foreign name Lien-ku-ta-la ³	Socotra island, c. 12° 30' N ²
Ha-fu-ni	'Hafun', the country adjoining Ras Asir, 11° 50' N ⁴
[Pei ch'en], 4 fingers 1 quarter	equals 6° 49' N
Mu-erh-li Ha-pi-erh	'Morro-Khebir', Ras Mabber (cape), 9° 28' N ⁵
Hei-erh	Ras el Cheil (cape), 7° 44' N ⁶
[Pei ch'en], 3 fingers 1 quarter	equals 5° 13' N
La-ssu Na-ha	'Ras Naha', Ras Assuad, 4° 33' N? ⁷
Mo-erh Kan-pieh	Ras Mabber ⁸
Mu-ku-tu-shu	Mogadishu town, 2° 02' N
Pei ch'en, 2 fingers 1 quarter	equals 3° 36' N
Shih-la-wa ⁹	Brava town, 1° 07' N
Hua kai, 8 fingers	equals 1° 36' N
Mu-lu-wang	Brava ¹⁰
Ch'i-ta-erh	Ras Kitao (cape), 2° 18' S, on Manda island? ¹¹

¹ Ff. 19v, 20, 20v. This section contains 14 place-names; the editor thinks that 11 are identified with reasonable certainty. The star-altitudes are inaccurate, and sometimes unintelligible.

² See *Red Sea and Gulf of Aden Pilot* and British Admiralty Chart 597.

³ For *Lien* read *Shu*.

⁴ See the *Africa Pilot*, vol. III (11th ed., London, 1954), and British Admiralty Chart 2953. See Yule and Burnell, under 'Guardafui, Cape', p. 398a. The *Muhit* gives the same altitude of Polaris at 'Gardafun or the Red cape' (Ferrand, *Textes*, vol. II, p. 526). Capo Guardafui is now usually known as Ras Asir.

⁵ 'Murr-i-kabir' of the *Muhit*, 'Morro-Quabir' of the Portuguese, 'Moro Cobir' of Van Keulen, 'Morro-Cobir' of Horsburgh; identified with Ras Mabber by Guillain, vol. I, p. 494. See *Africa Pilot*, vol. III, p. 505.

⁶ 'Ras al Hirr' of the *Muhit* (Ferrand, *Textes*, vol. II, p. 531).

⁷ 'Alnaha' of Idrisi's map (1154), 'alnga' of Idrisi's map (1192). We can find no clues to the identity of this cape, the only place written along the 500-mile stretch of the coast between Ras el Cheil and Mogadishu.

⁸ A marginal note with a different transliteration for 'Morro-Khebir' above.

⁹ For *Shih* read *Pu*, as in Shih Yung-t'u.

¹⁰ A marginal note with a different transliteration for Brava above.

¹¹ Presumably 'Kitawa' of the *Muhit* (Ferrand, *Textes*, vol. II, p. 535).

Appendix 2

Man-pa-sa	Mombasa town, 4° 04' S
Hua kai, 7 fingers	equals 0° 00'
Che chi la ha tse la	'Gezira, Gezira'? ¹
Men-fei-ch'ih	Mafia island, 7° 58' S ²
Hua kai, 7 fingers	equals 0° 00'
Ko-ta-kan	Quitangonha (Jamali) island, 14° 51' S, in Conducia bay ³
Ma-lin-ti	'Malindi', Mozambique, 15° 03' S? ⁴

Sailing directions

[From (uncorrected) 3° 12' S, near the equator, to (uncorrected) 10° 26' N, latitude of Ras al Kalb in Arabia] [f. 19v] '[When you are] in [the latitude where the altitude of the] Hua kai star [is] less than 5 fingers [(uncorrected) 3° 12' S] [and] are going to [the latitude where the altitude of the] Pei ch'en star [is] 4 fingers [(uncorrected) 6° 25' N], you set [your course] upon the Tou [star] [Alpha, Beta, Gamma, Delta of Ursa Major]. When mountains appear, you set a compass [-course] of 15°-30°. [After] 65 watches the ship reaches Ko-erh-te-feng [Guardafui], [which is] Ha-fu-erh-yü ["Hafun"].' [f. 20v] '[When you are] in [the latitude where] the angle is 3 fingers [(uncorrected) 4° 49' N], mountains appear. Going to [the latitude where the altitude of Pei ch'en is] 6 fingers 2 quarters [(uncorrected) 10° 26' N], [you go] straight around that place on [a course of] 60°.' . . . 'Again, [when you are] in [the latitude where the altitude is] 6 fingers 2 quarters, there will be mountains to landward.'⁵

[The editor has not found any other sailing directions for this coast.]

¹ Perhaps referring to the 'islands' of Zanzibar and Pemba. Shih Yung-t'u has *tse* for *chi*.

² 'Monfiya' of the *Muhit* and 'Monfia' of Linschoten.

³ See British Admiralty Chart 653. 'Ko-ta-kan' is Lancaster's 'Quitangone'.

⁴ Perhaps the whole coast, once called Melinde (compare Jourdain).

⁵ The Chinese text is written by an illiterate person and is corrupt, hence the translation is tentative. Thus, we have taken 'Ko-erh-te-feng' and 'Ha-fu-erh-yü' to be one and the same place; but if the writer intends to represent that they were different places, then he has written them in the wrong order, since Ras Asir is 92 miles further north.

APPENDIX 3

MISCELLANEOUS NOTES ON SHIPS, SEAMANSHIP, NAVIGATION, AND COGNATE MATTERS

SHIPS

During the last three thousand years the Chinese have built all kinds and sizes of boats and ships, from the humble sampan (three planks) to the stately 'treasure-ships' of about three hundred feet. But the sea and sea-craft made no appeal to the Chinese literati, and master-builders did not write treatises expounding their methods, hence books on these subjects are very scarce before the seventeenth century; there is no great published work on Chinese ship-building, and no really good picture of a Chinese ship in a Chinese work before 1757.

Though remarks about shipping may be found in many historical writings, the earliest work which contains useful material on ship-building is Li Chao-hsiang's book of 1553 on the Dragon River ship yard at Nanking, which had built several ships of Cheng Ho's fleets a century earlier.¹ Hence, when we attempt to describe a ship of the early fifteenth century, we find that there is no contemporary Chinese work devoted specifically to this subject, and we have to rely on incidental references occurring in books concerned primarily with other topics, and on later descriptions from which earlier conditions can be inferred.

Not that there is any lack of illustrations showing the forms of Chinese

¹ Li Chao-hsiang, *Lung-chiang ch'uan-ch'ang chih*, 'Records of the Lung Chiang Ship Yard' (1553). The Ming edition of the publishing house Chi ku ko has been reproduced in facsimile by the National Central Library as nos. 117, 118, and 119 of the 'Supplements to the Hsüan lan t'ang Collection'. On Li's book see Jung-pang Lo, 'Ming', pp. 158-68; Pao Tsen-peng, pp. 2-4, 8-9, 11-14, 18, 33-8, 44-5. The second chapter contains 26 illustrations of ships and boats, the most interesting being a 'sea ship' having four masts and therefore a length of about 180 feet. In the fourth chapter Li describes the lay-out of the yard and includes two ground-plans. Li's book is one of the treasures of Chinese technological literature (Needham), and surely deserves monographic treatment.

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boats and ships; for from the beginning of the seventeenth century encyclopaedias copied all the ancient material, enlarging it by many new descriptions and accounts of ship-types. Thus, Wang Ch'i's *San-ts'ai t'u-hui* (1609) gave some thirty illustrations of ships, Mao Yüan-i's *Wu-pei chih* (1621) gave thirty-four, including about twenty from Wang, and Ch'en Meng-lei's *T'u-shu chi-ch'eng* (1726) gave forty-five, including fourteen from previous works. But in examining these illustrations we are confronted with two great difficulties: (a) we do not know the dimensions of the vessels, and (b) we do not know the dates to which the various vessels should be ascribed, and some of them go back to much earlier periods. A principal object of this appendix is to describe 'the great sea-going junk' and its operation at the beginning of the fifteenth century.

The editor has consulted the three Chinese works above-mentioned, as well as the books of Chu Yü, Chou Ch'ü-fei, Chao Ju-Kua, Cheng Jo-tseng, Kung Chen, and the *Ming shih*; and, among modern writers, he has referred to Hirth and Rockhill, Donnelly, Poujade,¹ Worcester, Paris, Audemard, Wang Gungwu, Gibson, and Pao Tsen-peng; but the most valuable source of his information has been the unpublished researches of Dr J. Needham, F.R.S., which have been most generously placed at his disposal.² The picture which he attempts to draw is a composite one; it cannot be guaranteed that any one junk contained all the features which are mentioned, or even that all these features were in existence at the point of time which is specified; no doubt considerable variations occurred; and all measurements should be qualified by prefixing the word 'approximately'.

THE SHIP

The 'great sea-going junk', 'la grande jonque de mer', was more than 200 feet long and might have from 50 to 100 cabins. It is not known when it first made its appearance; but there are reasons for thinking that it was in the twelfth century; we may provisionally conclude that Chinese junks contained no cabins in 1119, for Chu Yü states that the traders drew lots for space, and slept on the top of their goods, and we may provisionally conclude that the junks contained cabins in 1178, for Chou Ch'ü-fei says that the junks, 'like houses', carried stores for a year's supply of grain, pig-styes, and fermentation-vats. The date may have been before 1161, when 'great merchantmen' took part in the war against the Juchen.

¹ J. Poujade, *La Route des Indes et ses Navires* (Paris, 1946).

² Vol. iv, pt. 3, of *Science and Civilisation in China* will contain a section on nautical technology. By courtesy of the Cambridge University Press the editor is permitted to quote from this section, and to Dr Needham he owes a debt of gratitude which cannot be repaid.

We envisage a ship 250 feet long,¹ and 110 feet broad,² with 50 cabins. The draught would be 25 feet, the burthen 1,000 tons, and the displacement 1,250 tons.³ The junk would bear a name, say, *Chung Ho*, 'China Harmony'. It had a flat-bottomed pinewood hull, and the cross-section of the frame was almost rectangular, having the greatest fullness aft, as befits a slow-moving craft; great strength was derived from 14 pinewood bulkheads, reinforced by vertical uprights and timbers across the bottom, and the hull was further strengthened by longitudinal members and transverse beams. The bulkheads facilitated the construction of several water-tight compartments.

Bow and stern were bluff, and capable of standing the worst weather. Rooms below deck, both fore and aft, provided living quarters; and the remainder of the hull-space accommodated cargo. There was one main deck; and the deckhouse aft of the main mast contained compass-room, oratory, cabins, storage-rooms, and galley;⁴ while projecting beyond the stern was a 10-foot-long stern-gallery. In accordance with the rule prevailing in Ming times, the ship had 6 masts,⁵ of which the main mast was 90 feet high; the masts were staggered, that is, positioned on each side of the centre-line, and raked, that is, set at an angle to the vertical. Each mast carried a square-headed balance lug-sail of matting stiffened with bamboo battens; and the large main sail, rising to a height of 60 feet, weighed 5 tons and was raised by a windlass; the sails were slung to the mast in a fore-and-aft position, and in a squall only the halyard needed to be touched for the sail to collapse neatly.⁶

The stern-post rudder consisted of a straight post of wood 10 feet long, with an axe-shaped board at its lower end; it was attached to a vertical member of a bulkhead; it could be raised or lowered by means of a windlass

¹ Compare Donnelly, p. 29, 'The Pechili Trader', and Worcester, vol. 1, p. 114, 'The Sha Ch'uan or Kiangsu Trader', with a most informative scale-plan on plate 38. In the eighth century the ships of Ceylon were 200 feet long, and Cheng Ho's giant 'treasure-ships' were probably 300 feet long. Later ships were smaller; the *Keying*, a vessel more or less of the 'Foochow pole junk' type, which sailed from Hong Kong to London in 1846-8, was 160 feet long, and 33 feet broad.

² The relation between breadth and length is taken from Pao Tsen-peng, p. 13. Modern ships are much slimmer; but until the seventeenth century the usual proportion between length of keel and greatest width of hull was 2 to 1 (Gibson, p. 127).

³ Conti mentioned a vessel of 2,000 tons; he may have been exaggerating, or he may have seen one of Cheng Ho's 'treasure-ships'.

⁴ The disposition of the cabins is uncertain; in a modern vessel of this type with 12 cabins, 6 lay on each side of a central corridor; compare the arrangement in the 'Foochow pole junk' (Worcester, vol. 1, p. 139).

⁵ Pao Tsen-peng, pp. 11-12.

⁶ The Chinese sail is an aerodynamically perfect propulsive mechanism; and the Chinese junk could sail closer to the wind than an Arab or European ship of the time (Poujade, p. 243). For handiness the Chinese rig is unsurpassed.

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and was operated by a tiller 16 feet long attached to the top of its post. The compass-room housed a magnetic compass. Six iron fluked anchors (*ting*) were used to moor the ship; the heaviest weighed 500 pounds, and the sailors hoisted it by means of a windlass.¹ Sheets and halyards were made of hemp stalks twisted together, and the anchor-cables of thin strips of bamboo boiled in water and twisted into rope. To caulk the seams they used a chisel to force in a mixture of hemp and cotton moistened with tung oil and lime. The ship carried three sampans to provide communication between ship and shore.

PERSONNEL

The master (*chou shih*) is in supreme command of the ship.

A mate acts as the master's mouth-piece, and directs the general administration of the ship.

A purser is in charge of valuables and papers.

An officer called *huo ch'ang*, 'fire chief', superintends the compass.

A helmsman, with two reliefs, controls the tiller.

A boatswain (*a pan*) oversees the masts and booms.

A chief lineman and a second lineman attend to the ropes.

A head anchor-man and a second anchor-man look after the anchors.

An armourer has an armoury wherein are kept bows, arrows, knives, and shields in readiness against attack by pirates.²

The crew numbers thirty men.³

The ship carries a Taoist priest,⁴ and an 'incense-keeper' (*ssu hsiang*) whose sole duty is to see that the votive incense never ceases to burn.⁵

SEAMANSHIP AND NAVIGATION⁶

(Seamanship is the art of handling a ship under all conditions. Navigation is the art of determining the correct course of a ship from one place to another when out of sight of land.) The master derived his knowledge from experience, oral tradition, and maritime diagrams and navigational com-

¹ But in the shallower seas of the north the Chinese used a kind of grapnel called *t'ieh mao*, 'iron cat' (Wang Ch'ü and Wang Ssu-i, *San-ts'ai t'u-hui*, section *chi yung*, ch. iv, f. 37).

² Chang Hsieh, p. 117.

³ Figures differ remarkably; Worcester says 'over 20'; but Marco Polo relates that a large merchantman might need 300 men; according to Kung Chen, one of Cheng Ho's 'treasure-ships' required 300 men; and Purcell notes that a junk carrying labourers in the nineteenth century had a crew of 90.

⁴ Needham, vol. iv, pt. 1, p. 258.

⁵ Chang Hsieh, p. 125.

⁶ Since 1960 the government of Hong Kong has instituted free courses in navigation for the masters of the 10,000 fishing craft which may operate 350 miles from home, to impart a working knowledge of navigation by dead-reckoning.

pendia;¹ and the aids which he used were (a) lead and line, (b) magnetic compass, (c) an instrument, probably a kind of cross-staff, to measure stellar altitudes, and (d) a burning incense-stick to indicate the length of a watch. He was expected to know the anchorages, land-marks, islands, and dangers, and the directions, distances, and times taken in proceeding from one point to another, also the winds and weather-signs; and he was expected to understand the operation of the compass, the measurement of stellar altitudes, the observation of sun, moon, and azimuthal stars, and the calculation of speed, also currents, depths, and tides, and signs such as the colour of the water, and the objects likely to be found floating in it.²

The master navigated primarily by compass-bearing and time. He used a 'wet' compass, that is, a needle floating in water; it was contained in a circular box carrying the compass-points on the rim. Special kinds of water were prescribed, and care was taken about the exact manner in which the needle floated, and the ceremonial libations to be used at the time of preparing the compass. A lodestone was carried to remagnetize the needle.³

Time was calculated in terms of watches; 10 watches of 2.4 hours made up one day and night; the duration of a watch was indicated by the burning of an incense-stick whose rate of burning was already known; though Magalhaens considered the measurement 'just and certain', it seems improbable that the sticks burnt with any high degree of regularity.⁴

To check the latitude, the navigator frequently measured the altitude of Pei ch'en (Polaris) and Teng lung ku (Crux), and sometimes that of Pei tou (Ursa Major), Hua kai (50 of Cassiopeia?), Chih nü (Lyra), Pu ssu in the north (Pegasus?), Ch'i hsing (Hydra), Pu ssu in the south (Piscis Australis?), Shui p'ing (Carina), and Nan men (Centaurus). Although it was not necessary after the invention of the magnetic compass, the navigator sometimes checked his direction by observing the points of rising and setting of Hua kai, Pei tou, Chih nü, Niu lang (Aquila), Nan tou (Sagittarius), Liang san (unidentified), Shui p'ing, and Teng lung ku. Astronomical observations were made with an instrument, probably some kind of cross-staff, and calculations were made in terms of the *chih* (finger) of 1° 36' and the *chüeh* (fraction) of 24', being probably one quarter of a *chih*.⁵ Navigators were

¹ 'Shun-feng', f. 4, 'maps were drawn and everything was written down'. Rutters and sailing directions began to be preserved in Sung times.

² Chang Hsieh, p. 117; 'Shun-feng', ff. 4, 6v, 8v, 9, 9v, 10; Lü P'an and Lu Ch'eng-en, f. 12v; Mao Yuan-i, *Wu-pei chih*, ch. 240, ff. 22v-24.

³ Needham, vol. IV, pt. 1, pp. 289, 291.

⁴ 'Shun-feng', f. 6v; Needham, vol. III, p. 330.

⁵ Hua kai had the same declination as Beta and Gamma of Ursa Minor (+74° 15' and +71° 57', respectively); according to Rufus and Tien, Hua kai consisted of 16 stars in Cassiopeia; and the only appropriate star listed in the *Astronomical Ephemeris* is 50

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familiar with the method of gaining the required latitude and running along it to their destination.

The speed of the ship was estimated by a sailor who threw a floating object overboard at the bows and walked abreast of it to the stern, reciting a formula which indicated the length of time taken. If the vessel was travelling at 2 knots, it would take 51 seconds to walk 150 feet.¹ Chinese texts state that the distance travelled in one watch was reckoned as 60 *li*; and this would be equivalent to 20 miles, or a speed of 8 knots. That, however, must refer to the most favourable conditions; in the Mao K'un Map the fastest run over a short distance was made at 5.75 knots; and on a long voyage the average speed would probably not exceed 4.4 knots.²

The sailing directions sometimes note a change of direction in mid-ocean; for instance, a change was made during the crossing from Deogarh in India to Jabal Quraiyat in Arabia;³ this indicates that the navigator thought he knew his longitude; but longitude was not exactly ascertainable before the invention of the chronometer in the eighteenth century.

The helmsman controlled the tiller from a position inside the deckhouse, the adjustable rudder being lowered until it was 5 feet below the keel-line.

'Port' (the left-hand side of the ship looking forward) was called the 'sail-spread side' (*fan p'u pien*), and 'starboard' (the right-hand side of the ship looking forward) was called the 'horse-door side' (*ma hu pien*); thus, on the voyage southward from the east coast of Bintan island Lingga Peak was seen on the horse-door side and Bangka island on the sail-spread side.⁴

The method of tacking was understood. Wind blowing from the beam was also used to drive the ship forward.⁵ If the wind freshened, the sail could

of Cassiopeia; hence it is suggested that Hua kai should provisionally be identified with 50 of Cassiopeia, right ascension, 2 hours, declination $+72^{\circ} 15'$.

The value of a *chüeh* cannot be determined with certainty; one might reasonably presume that it was the same as that of the Arab *ẓam*, that is, one-eighth of a finger; but this presumption would be rebuttable on two grounds, (i) since Huang Sheng-tseng speaks of half a *chueh*, it would involve the conclusion that the *chih* was divided into 16 parts, and this is unlikely, (ii) since the number of *chueh* in 25 Chinese statements of altitude never exceeds 3, it would involve the conclusion that no altitude included the number 4, 5, 6, or 7 *chueh*, and this is contrary to the law of probability; hence it is suggested that the number of *chueh* contained in one *chih* ($1^{\circ} 36'$) should provisionally be taken as 4.

¹ Compare 'Shun-feng', f. 6v, and Lü P'an and Lu Ch'eng-en, f. 5. A sand clock was made in 1370, and one of Cheng Ho's large ships may have carried one.

² See 'Shun-feng', f. 6v. Cheng Ho's fastest run on a long voyage was from Calicut to Kuala Pasai, 1,491 miles in 14 days.

³ 'Shun-feng', f. 47v.

⁴ 'Shun-feng', ff. 26v, 34v.

⁵ European square-rigged ships could not and did not attempt to make headway against an adverse wind; and hence might take several days trying to get into a narrow seaway, for instance the entrance to the Persian Gulf.

Notes on ships, seamanship, navigation

be made to come down by its own weight. Frequent soundings were made with the lead and line, and, by means of tallow affixed to the lead, samples of the bottom were brought up for examination. When near the coast, ships navigated 8 or 10 miles from land. Ships carried sufficient provisions and fresh water to meet the requirements of crew and passengers until the next stop.

RELIGION

The oratory in the deckhouse contained the image of T'ien fei, the Heavenly Consort, addressed by Buddhists and Taoists alike as Queen of Heaven. Here sacrifices were offered, and a special 'incense-keeper' had the sole duty of ensuring that the incense never ceased to burn. Pious sailors, even Muslims, would also worship Kuan yin, the Buddhist goddess of mercy.

Every morning at day-break the master led the congregation in worship. Liturgical forms were used in prayers giving thanks for past protection and appealing for tranquillity and salvation. Special ceremonies were performed at particular places; thus, sacrifices were made at Mei chou tao, the original home of T'ien fei, and at Ta chou tao, off the east coast of Hai nan island; and ornamental boats were released at Wu chu tao, off the south coast of Canton province; but the most elaborate ceremonies were those performed at Ling shan, 'Holy mountain', Cape Varella, off the east coast of Vietnam; here the sailors fasted and bathed for three days, worshipped Buddha, offered prayers, and set on the water lighted lamps and painted boats.¹

NAVAL WARFARE

With rare exceptions the war-junk was an ordinary junk of commerce handled by skilful seamen, but the fighting was done by soldiers. Some ships were 'huge and mighty vessels, with high castles on prow and stern'; and prows were sometimes protected with a covering of iron. Vessels of war carried trebuchets and guns, but the gunnery was usually inaccurate and ineffective. Great use was made of incendiary weapons such as flaming arrows, rockets, flame-throwers, and bombs.

Many warlike stratagems were devised; one effective method of damaging the enemy was to throw powdered lime into the air in such a manner that the wind carried it on to the enemy ships. Chinese commanders always preferred projectile weapons to close combat. A giant claw was used to hold the enemy ship at a distance, so that it could be raked with arrows from the accurate and powerful Chinese crossbow, whose mechanism was made with exact precision from a high-quality bronze casting.

¹ Rockhill, Part II, pp. 96-7; 'Shun-feng', ff. 12v, 13; Chang Hsieh, pp. 118, 119, 125; Worcester, vol. 1, p. 143.

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In close combat the soldiers used swords, halberds, and spears. We have no disinterested comment on Chinese fighting qualities during the fifteenth century; and sixteenth-century writers held different views. There is reason for thinking that the Chinese soldiers were brave, speedy, and skilful, though their manœuvres were carried out in a disorderly manner by huddled crowds. It is worth noting that the Chinese naval forces were held in such great respect in 1403 that a Vietnamese commander withdrew under a threat of naval action, and the Chinese navy won several victories during the war of 1406–14. But later the tide turned, and they suffered reverses in 1420 and 1425. During the succeeding century their morale collapsed; and Pires could write in 1515 that one Javanese or Malay junk would rout twenty Chinese junks.¹

¹ See Cheng Jo-tseng, ch. 13, ff. 2v-3; L. C. Goodrich and Feng Chia-sheng, 'The Early Development of Firearms in China', *Isis*, vol. xxxvi, pt. 2 (1946), pp. 114–23; Worcester, vol. II, pp. 339–50; Boxer, pp. 146, 273; Jung-pang Lo, 'Sung', pp. 500–1; Audemard, p. 31. For sketches of warships see Worcester, vol. II, plate 121, facing p. 340, and Audemard; but these cannot be dated, and some belong to earlier periods. Wang Ch'i and Wang Ssu-i, *San-ts'ai t'u-hui* (1609), section *ch'i yung*, chapters VI, VII, and VIII, contains sketches of guns, engines, and implements of warfare.

APPENDIX 4

THE LOCATION OF LUNG YA STRAIT

In this appendix the editor seeks to ascertain the course followed by the ordinary Chinese merchant ship when passing between Malacca strait and the South China Sea in 1433. We have a sketch of this passage in the Mao K'un Map; but the data presented in this map have been interpreted in two different ways; in 1937 the editor suggested that the compiler intended to recommend a course lying to the south of Pulau Satumu (Raffles light);¹ and in 1961 Wheatley favoured a course through Keppel harbour.² Wheatley made certain modifications in the map; and since we know that the map contains errors, this is justifiable if other evidence so requires. We may assume that no other route is considered likely; and we may logically conclude that, if one of the two routes is shown to be impossible, the other route should be accepted.

The investigation presents considerable difficulty. We cannot proceed in an orderly manner from east to west or vice versa; but are obliged to select the most useful stepping-stone, and jump discriminatingly from one stepping-stone to another. The argument can be followed by referring to British Admiralty Chart 2403, Singapore strait, with an enlarged representation of the western portion of the strait in chart 3833; and the relevant Pilot is no. 44, *Malacca Strait Pilot* (4th ed., 1958).

SOURCES

The evidence is provided in four Chinese sources;

- (1) the Mao K'un Map, which is supposed to give the route taken by the ships of Cheng Ho (c. 1422);
- (2) the navigational manual bearing the sub-title 'Shun-feng hsiang-sung', 'Fair Winds for Escort', which Needham dates as about 1430;
- (3) the sailing instructions given in Lü P'an and Lu Ch'eng-en's manuscript 'Ping ch'ien', 'A Military Manual' (1674, but referring to about 1612);
- (4) the sailing instructions given in Chang Hsieh's *Tung Hsi yang k'ao*, 'A Study of the Eastern and Western Oceans' (1618).

¹ Mills, 'Wu-pei chih', pp. 21 ff. (some opinions now modified).

² Wheatley, *Khersonese*, pp. 94 ff.

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EVIDENCE

Before giving the gist of the statements made in these four sources, we reproduce in simplified form the cartogram which appears in folios 15 v and 16 of the Mao K'un Map, and a sketch embodying the conclusions arrived at in the present appendix. We can readily identify the area depicted in the Mao K'un Map, since it is certain that Tan-ma-hsi means Singapore, Chi-li-men means Karimun island, and Pai chiao means Pedra Branca.

It will be noticed that the name Lung ya men does not appear between Pedra Branca and Karimun island, but it is written, probably as a 'marginal note', in a position between Pedra Branca and the island of Bangka.¹ The relevant portion of the Mao K'un Map is reproduced on a reduced scale in Wheatley's *The Golden Khersonese*, being fig. 20 between pages 100 and 101.

In this appendix the editor has added 5° to the Chinese bearings in order to make allowance for the variation of the compass, and the figures are enclosed in square brackets.

The Mao K'un Map

[f. 16] ... level with P'i-sung island [Pulau Pisang]; steer exactly [140°], and make Chi-li [-men, Little Karimun island].

[f. 15 v] From Chi-li-men, for 5 watches the ship steers [117½°] and [then] exactly [125°], makes Ch'ang yao island, and goes out through Lung ya strait. From Lung ya strait, steering [87½°] for 5 watches, the ship makes Pai chiao [Pedra Branca].

'Shun-feng hsiang-sung'

Note on Pai chiao [Pedra Branca]

[f. 14] See Ch'ang yao island. On the inside pass Tan-ma-hsi strait. [Here] again there is an anchorage over against the rocks. [And here] you make a change of ship.

Note on Tan-ma-hsi strait

[f. 14] Take a sounding, 30 fathoms. You cannot navigate the ship at night.

Note on Ch'ang yao island

[f. 14] Take a sounding, 30 fathoms. [In] Lung ya strait avoid the south side [and] Liang san rock; it is the north side which is the correct route. [Sounding], 20 fathoms.

¹ It may be worth noting that (a) a place called Ling ya men is mentioned by Chao Ju-kua (p. 12); (b) in 1320 the Yüan emperor sent an embassy to a country called Lung ya men and in 1325 the latter country sent an embassy to China (K'o Shao-min, *Hsin Yuan shih*, 'New Yüan History' (1919), pp. 6631, row 3, and 6633, row 3); and (c) a place called Lung Ya men is described by Wang Ta-yüan (f. 13).

Lung ya strait

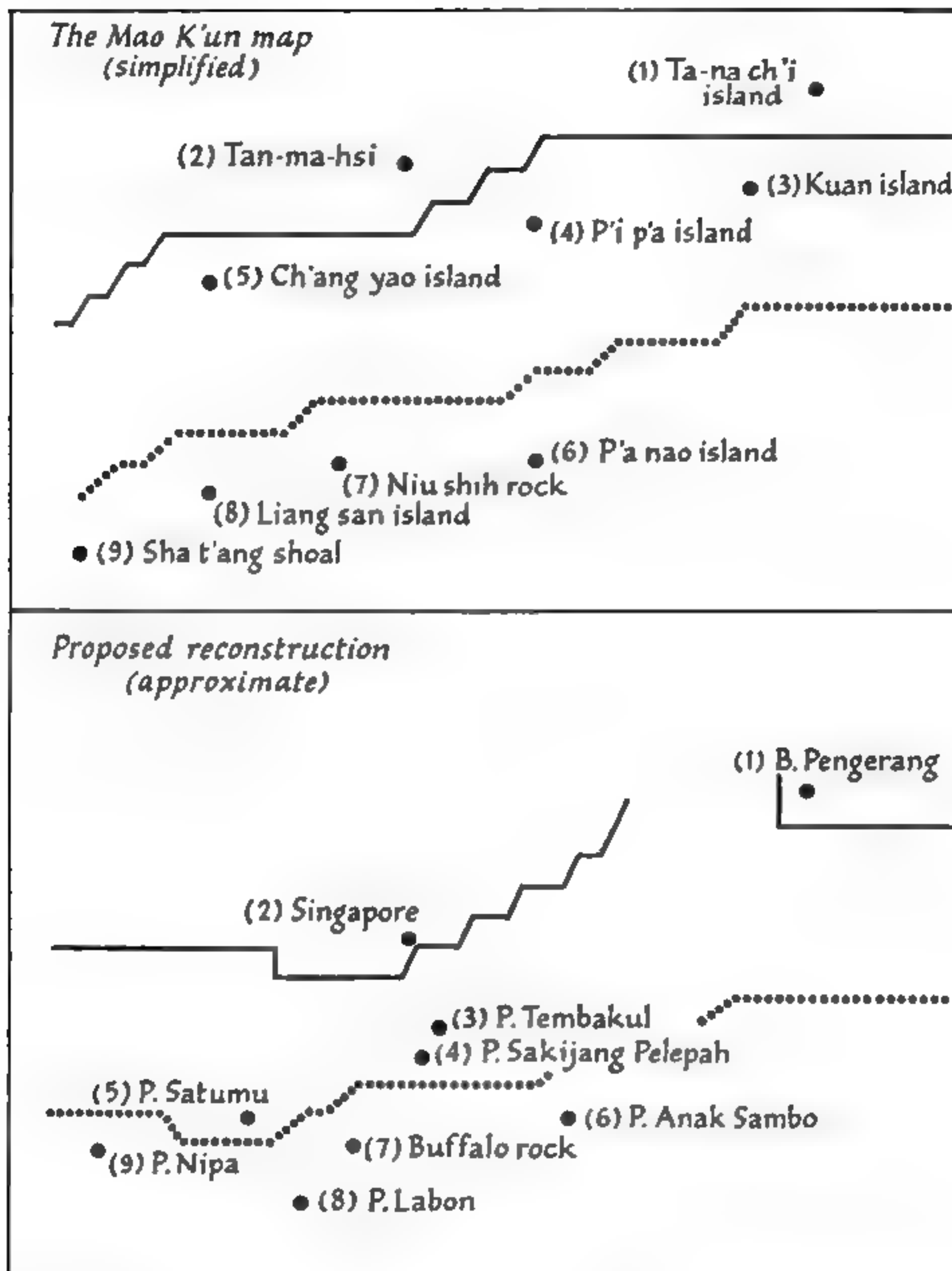


Fig. 6. A simplified version of part of folio 15v of the Mao K'un Map, and an approximate reconstruction. The black line indicates the coast-line. The line of dots denotes the ship's course

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Note on Lung ya strait

[f. 14] In the middle there are 30 fathoms. You see Ch'ang sha shoal. On the north side, 20 fathoms; on the south side, 8 or 9 fathoms.

Note on Niu shih rock

[f. 14] Carefully enter the strait. You see Ch'ang yao island. More than 20 fathoms of water. Avoid the south side.

Note on Liang san rock

[f. 14] On the north side is the correct route. Take a sounding, 29 fathoms.

The route from Kuang tung to Mo-liu-chia [Malacca]

[ff. 25v-26] . . . Pai chiao [Pedra Branca] . . . steer exactly [275°]; after 5 watches the ship makes Lung ya strait . . . avoid the south side [where] you have Niu shih rock; you pass [through] the strait; [when] level with Ch'ang yao island, avoid the south side [where there are] sandy shoals and Liang san rock. Steer [297½°]; after 3 watches the ship makes Chi-li-men mountain [Karimun island]. Steer [327½°]; after 5 watches the ship is level with K'un [P'i]-sung island [Pulau Pisang].

The route from Man-la-chia [Malacca] to Kuang tung

[f. 26] . . . K'un [P'i]-sung island [Pulau Pisang] . . . exactly [140°]; after 3 watches you make Chi-li-men mountain [Karimun island]; follow the mountains and proceed; on the north side [there is] a tail of land, be on your guard [against it]; [steer] exactly [125°] and [then] [117½°]; after 2 watches you make Ch'ang yao island; you cannot travel [on the] south [side]; be apprehensive about fouling Liang san rock and Sha t'ang shoal; go out [through] Lung ya strait; . . . steer exactly [95°]; make Kuan island; avoid the north [read 'south'] side and Niu shih rock; steer [87½°]; after 5 watches the ship makes Pai chiao [Pedra Branca]; navigate the ship past the north side [of it].

The route from Hsien lo [Thailand] to Mo-liu-chia [Malacca]

[f. 32] Pai chiao [Pedra Branca] is a land-mark . . . the correct course is to steer [267½°]; after 5 watches you enter Lung ya strait . . . after you have emerged from the strait you again pass Tan-ma-hsi strait. Steering [267½°] and [then] [297½°], after 3 watches you make Chi-li-men mountain [Karimun island], [and, steering] [327½°], after 3 watches you make K'un [P'i]-sung island [Pulau Pisang].

Lung ya strait

The route from Mo-liu-chia [Malacca] to Hsien lo [Thailand]

[f. 32v] K'un [P'i]-sung island [Pulau Pisang] . . . steer $[132\frac{1}{2}^{\circ}]$; after 5 watches make Chi-li-men mountain [Karimun island] . . . steer $[117\frac{1}{2}^{\circ}]$, after 3 watches make Tan-ma-hsi strait and [then] Ch'ang yao island; avoid the south side [and] Liang san rock and Sha t'ang shoal; go out [through] Lung ya strait; on the south side you have Niu shih rock . . . steer $[117\frac{1}{2}^{\circ}]$; after 5 watches you make Lo han islands [Lima islands]; [on the south?] side you have Pai chiao [Pedra Branca]; you can pass through the middle of the strait.

'Ping ch'ien'

The route from Wu hsü [near Hsia men] to Ma-liu-chia [Malacca]

[f. 50] Make Pai chiao [Pedra Branca] and Ma an mountain and Lo han islands [Lima islands] . . . Steer exactly $[275^{\circ}]$; after 5 watches you make Lung ya strait . . . be sure to avoid the south side [where] you have Pan ch'uang [Niu shih?] rock. [Here] is Ch'ang yao island; [here] also avoid the south side [where] you have shallows and sand-banks and Liang san rock. Steer $[297\frac{1}{2}^{\circ}]$; after 3 watches [you reach] Chi-li-wen [Karimun island]. Again, [steer] exactly $[320^{\circ}]$; after 3 watches you make K'un [P'i]-sung island [Pulau Pisang].

The route from Ma-liu-chia [Malacca] to Wu hsü [near Hsia men]

[ff. 50-50v] K'un [P'i]-sung island [Pulau Pisang] . . . steer $[147\frac{1}{2}^{\circ}]$; after 3 watches make Chi-li-wen [Karimun island]. In front on the north side [is] a tail of land which must be avoided. Steer exactly $[125^{\circ}]$ and [then] $[117\frac{1}{2}^{\circ}]$; after 3 watches you make Ch'ang yao island. Carefully avoid passing along the south side [of the strait]. You should travel on the north side [of the strait] as the ship passes [through]. Take a sounding, 14 fathoms. Again, avoid the north side [and] Lo han islands [Lima islands]; on the north side there are rocks—as you go out of the strait you must avoid Pai chiao island [Pedra Branca].

Tung Hsi yang k'ao of Chang Hsieh

The route from K'un-lun shan [Grand Condore] to Ma-liu-chia [Malacca]

[pp. 120-1] Lo han islands [Lima islands]. Going and coming seek Pai chiao [Pedra Branca] as a leading mark. Going to Man-la-chia [Malacca] follow the north side for your ship to pass. Steer $[267\frac{1}{2}^{\circ}]$; after 5 watches you enter Lung ya strait.

Lung ya strait. Nowadays, at night, the people in the *po* ships do not dare to travel [here] because of the multitude of robbers. And on the south there is the Liang san rock. In the middle take a sounding, 30 fathoms; on the

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north, 20 fathoms; on the south, 8 or 9 fathoms. Again, you pass Tan-ma-hsi strait. Steer $[267\frac{1}{2}^{\circ}]$, and [then] $[297\frac{1}{2}^{\circ}]$; after 3 watches you make Chi-li-wen mountain [Karimun island].

Chi-li-wen mountain [Karimun island]. Steer $[327\frac{1}{2}^{\circ}]$; after 3 watches make K'un [P'i]-sung island [Pulau Pisang].

ANALYSIS OF THE EVIDENCE

Bearings

Eastward route

	From Pulai Pisang to Karimun island	From Karimun island to Ch'ang yao island	From Lung ya strait to Pedra Branca
Mao K'un Map	$[140^{\circ}]$	$[117\frac{1}{2}^{\circ}]$ & $[125^{\circ}]$	$[87\frac{1}{2}^{\circ}]$
'Shun-feng', f. 26	$[140^{\circ}]$	$[125^{\circ}]$ & $[117\frac{1}{2}^{\circ}]$	$[95^{\circ}]$ & $[87\frac{1}{2}^{\circ}]$
'Shun-feng', f. 32v	$[132\frac{1}{2}^{\circ}]$	$[117\frac{1}{2}^{\circ}]$	$[117\frac{1}{2}^{\circ}]$ [Error]
Lü P'an and Lu			
Ch'eng-en	$[147\frac{1}{2}^{\circ}]$	$[125^{\circ}]$ & $[117\frac{1}{2}^{\circ}]$	—
Chang Hsieh	—	—	—
	<i>Average</i> $[140^{\circ}]$	<i>Average</i> $[120\frac{1}{4}^{\circ}]$	<i>Average</i> $[89\frac{1}{4}^{\circ}]$

Westward route

	From Pedra Branca to Lung ya strait	From Ch'ang yao island to Karimun island	From Karimun island to Pulau Pisang
Mao K'un Map	—	—	—
'Shun-feng', f. 25v	$[275^{\circ}]$	$[297\frac{1}{2}^{\circ}]$	$[327\frac{1}{2}^{\circ}]$
'Shun-feng', f. 32	$[267\frac{1}{2}^{\circ}]$	$[267\frac{1}{2}^{\circ}]$ & $[297\frac{1}{2}^{\circ}]$ [From Lung ya strait]	$[327\frac{1}{2}^{\circ}]$
Lü P'an and Lu			
Ch'eng-en	$[275^{\circ}]$	$[297\frac{1}{2}^{\circ}]$	$[320^{\circ}]$
Chang Hsieh	$[267\frac{1}{2}^{\circ}]$	$[267\frac{1}{2}^{\circ}]$ & $[297\frac{1}{2}^{\circ}]$ [From Lung ya strait]	$[327\frac{1}{2}^{\circ}]$
	<i>Average</i> $[271\frac{1}{4}^{\circ}]$	<i>Average</i> $[290^{\circ}]$	<i>Average</i> $[325\frac{1}{4}^{\circ}]$

(1) The track of the ship takes the general direction east-west.

(2) The time taken in travelling between Karimun island and Ch'ang yao island is stated to be 5 watches in one case, 3 watches in two cases, and 2 watches in one case. The time taken in travelling between Lung ya strait and Pedra Branca is stated to be 5 watches in five cases (in one case to Lo han island). The time taken in travelling from Kuan island to Pedra Branca is stated in one case to be 5 watches.

Lung ya strait

(3) Many texts warn against travelling too far to the south in the vicinity of Ch'ang yao island and Lung ya strait.

(4) The dangers to the south of Ch'ang yao island are Liang san rock and Sha t'ang shoal. The dangers to the south of Lung ya strait are Liang san rock and Niu shih rock.

(5) Bearings from and to Pedra Branca are in all seven instances given to and from Lung ya strait; bearings from and to Karimun island are in six instances given to and from Ch'ang yao island, and in two instances to and from Lung ya strait.

COMMENT

From the statements made in the four sources quoted above we can draw two conclusions of a general nature; (1) since the four sources more or less agree on the figures, the texts are not corrupt, except in the one case noted above; (2) the route laid down was the one normally followed by ordinary merchant junks.

In attempting to locate the particular places, one must bear in mind three causes for caution. In the first place it seems unsafe to assume that 'Lung ya strait' was intended to mean 'Dragon Teeth strait'; the Chinese, as is well recognized, had a penchant for distorting a foreign name in order that the Chinese rendering might have a meaning in the Chinese language; a notorious example is the rendering of 'Kuala Lumpur' by (Cantonese) 'Ket Lung-po', in order that it might bear the meaning 'Lucky Dragon bank'. The name of this grossly overworked animal was called upon to render several sounds, for instance, 'Lang' in Langkawi, 'Ling' in Lingga, and even 'du' in Isdu. Instead of meaning 'Dragon Teeth', the name is just as likely to be a transliteration of a Malay name such as Linggeh; and there is even an island called Ling Nga in the Butang group. In the second place it does not seem safe to conclude that 'Dragon Teeth' referred to the western entrance of Keppel harbour; the reasoning, if the editor understands it aright, is as follows; (a) the term 'dragon teeth' was the name for the two vertical pegs at the bow of a junk, through which the anchor cable was carried, (b) the term was applied by Chinese sailors to natural features such as twin peaks; (c) at the western entrance of Keppel harbour there were formerly two prominent granite rocks; (d) therefore 'dragon teeth' meant these rocks at the western entrance of Keppel harbour.¹

One cannot but be sceptical about this conclusion for three reasons; first, the only contemporary writer who says that 'the mountains are like a dragon's teeth in shape' is Fei Hsin;² but Fei Hsin never went to this place; and Pelliot has warned against accepting Fei Hsin's hearsay statements;

¹ Wheatley, *Khersonese*, pp. 82-3.

² Compare Rockhill, Part II, p. 132.

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secondly, three of the extant versions of *Fei Hsin* (including the best one) say that 'the mountains are like dragon's horns [not "teeth"] in shape';¹ Huang Sheng-tseng says of 'Lung ya mountain strait' that 'the strait [not "mountains"] is like a dragon's horns in shape',² in which case there is no merit in the argument based on the equation of 'dragon's teeth' with vertical rocks. In the third place, it seems unsafe to assume that 'Ch'ang yao island' was intended to mean 'Long Waist island'; the Chinese knew at least seven islands which they called 'Ch'ang yao', and one of them, Labuan, is triangular rather than long; 'Ch'ang yao' may just as well represent some local name such as Djonga, Janka, or Jonggi.

Ta-na-ch'i island

This presents no great difficulty; undoubtedly it means the island of the river of Ta-na, and no doubt the river of Ta-na was the river of Ujong Tanah or Johor; there is an island called Pulau Tekong, 173 feet high, in Sungei Johor, but a higher hill would constitute a more useful land-mark; we know from the case of Mien hua hsü, Bukit Jugra, that the map sometimes applies the designation *hsü*, 'island', to a hill on the mainland, and the map draws this 'island' as a hill on the mainland; Wheatley has suggested Gunong Pelali, or Barbukit, a hill 624 feet high about 6 miles to the east; the editor thinks that the 'island' in question is more likely to be Bukit Pengerang or Johor hill, a conspicuous hill which is only half a mile from the Sungei Johor and therefore may with greater propriety be called 'the Johor river hill'; moreover, it is clear that the map regards this 'island' as important for the journey through the strait, whereas the importance of Barbukit lies in the fact that it was a useful object when approaching the eastern entrance from northward. It would be safer to regard the exact location as 'doubtful'.

Ma an mountain

This 'Horse Saddle mountain' has previously been identified with Tanjong Burong on Batam island, but we must now discard that situation in favour of one further east; since (a) Lü P'an and Lu Ch'eng-en (f. 50) speak of making 'Pai chiao [Pedra Branca] and Ma an mountain and Lo han islands [Lima islands]', when sailing southward to the strait, and (b) Lü P'an and Lu Ch'eng-en (f. 51) record a route from Man t'ou island [Poulo Taya], 4 watches to Lung-ya ta shan ['Lingga Great mountain', or Lingga peak], 15 watches to Ma an mountain, thence 50 watches to K'un-lun [Grand Con-

¹ Feng, *Fei Hsin*, ch. 11, p. 4.

² Compare Rockhill, Part II, p. 129, n. 2 (and on pp. 130-1). Rockhill's identifications are incorrect; Huang's first course ran west of the Karimun islands, and his second course through Singapore strait.

Lung ya strait

dore]; it is reasonably certain that this is the same Ma an mountain; and we must therefore identify it with Bintan Great hill, which from northward shows a saddle-shaped summit.

Kuan island

This has previously been identified with Bukit Pengerang, near the eastern end of the strait, and this identification also must be rejected, since 'Shun-feng' (f. 26) says that when proceeding eastwards from Lung ya strait the navigator steers $[95^\circ]$, till he reaches Kuan island, and then changes course to $[87\frac{1}{2}^\circ]$, whereon, after 5 watches, he will make Pai chiao [Pedra Branca]. As there are several statements to the effect that it took 5 watches to travel from Lung ya strait to Pedra Branca, we have to conclude that Kuan island must have been fairly close to Lung ya strait, but its identity must be considered later in connection with the route through the strait.

Terminal points

In the first place it is necessary to determine the exact points at which the ship entered and left Singapore strait; and the evidence enables us to ascertain these points. We must begin at P'i-sung island or Pulau Pisang; whence the ship steered $[140^\circ]$, which is the average of four readings. In the absence of evidence to the contrary, we assume that the ship kept at the same distance from P'i-sung island and Chi-li-men, Karimun island; and it is assumed that by 'Karimun island' the texts refer to the highest island of the Karimun group, that is, Little Karimun which rises to 1,237 feet. Plotting on the chart, we find that the ship, passing $2\frac{1}{2}$ miles from P'i-sung island and $2\frac{1}{2}$ miles from Chi-li-men island on a course of $[140^\circ]$, will bring Little Karimun abeam at the point $1^\circ 10' 12''$ N, $102^\circ 26' 24''$ E. This is the point at which the ship enters Singapore strait from the west; and it may be called point *K*.

At the eastern end of Singapore strait, we are told, the ship passed through the middle of the channel between Lo han islands (or Lima islands) and Pai chiao, Pedra Branca, Horsburgh Light. At this point the ship turned north; we may reasonably place this point at $1\frac{1}{2}$ miles north of Pedra Branca, that is, in $1^\circ 19' 48''$ N, $104^\circ 24' 20''$ E; and this may be called point *H*. We have also to consider a possible course south of Pulau Satumu, Coney islet, Raffles light; we may reasonably place this at half a mile south of Pulau Satumu; and this point may be called point *R*. The problem is, then, to ascertain whether the merchant junks travelled from point *K* to point *H* by way of point *R* or by way of Keppel harbour.

The track

The Mao K'un Map lays down a course south of Ch'ang yao island and P'i p'a island and Kuan island. When discussing the course past Ch'ang yao

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island, all the texts emphasize that the ships should travel in the north part of the strait, and avoid the named dangers in the south part of the strait; hence it follows that Ch'ang yao island was situated on the north side of the track. That is, the texts confirm the Mao K'un Map in its representation that the track lay on the south side of Ch'ang yao island. There being no evidence to the contrary, it is reasonable to conclude that the Mao K'un Map was also correct in laying down the track on the south of P'i p'a island and Kuan island.

Keppel harbour

This waterway, $2\frac{1}{2}$ miles long and only 200 yards wide between the 6-fathom lines at the western entrance, has always been unpopular with navigators. In modern times one knows from personal experience that masters of ships proceeding westward from Singapore road sometimes take the longer route to the south of Raffles Light in preference to the shorter route through Keppel harbour. In Stuart times, the master of the *Globe* (about 600 tons) travelling westward in 1613 was advised by the local pilot not to go through Keppel harbour ('the olde straite of Sincapura'), and he proceeded along the south-west coast of Pulau Blakang Mati because 'the newe straighte is better for greate ships to passe'.¹ In Keppel harbour both the east-going and west-going streams run strongly; the former causes somewhat dangerous swirls and eddies; and the latter may attain a rate of 4 knots between the western entrance points. Both sides of the harbour are fringed with reefs; vessels entering the harbour through the western entrance must keep in mid-channel; and off Tanjong Pagar on the north side there are shoals to be avoided by bearing south-east. The maximum depth is now about $6\frac{1}{2}$ fathoms; but the waterway has been improved since 1848; and thanks to the industry of the late Dr C. A. Gibson-Hill we are fairly well informed about its condition before that date. According to Gibson-Hill, Portuguese vessels passed through the strait in 1526 and Linschoten showed it to be a good waterway; but others took a different view; thus, in 1637 Weddell experienced 'much difficultie' in 'these troublesome straights', having only $4\frac{1}{2}$ fathoms a ship's length from him, and 17 or 18 feet away on both sides was hard rocky ground; in the same year Mundy said that about 20 yards from the ship there was less than 10 feet of water; and in the following year Weddell on his return journey westward took a different course, through the

¹ C. A. Gibson-Hill, 'Singapore: Notes on the history of the Old Strait, 1580-1850', *Journal of the Malayan Branch of the Royal Asiatic Society*, vol. XXVII (1954), pp. 173-5. Gibson-Hill wrote a later article ('Singapore Old Strait and New Harbour (1300-1870)' in *Memoirs of the Raffles Museum*, no. 3, December 1956, pp. 11-16); it contains several errors, and the editor sees no reason to modify any of the views expressed in this appendix.

Lung ya strait

Main strait, 'the largest and easiest passage'. Thornton in 1703 stated that the western entrance was only 100 yards wide, but inside the strait he found a depth of 12 fathoms; he notes that when you enter the strait from the west you must 'keep nearest the South Shore'; and later you must keep near the middle or nearest the north shore, but not too near because there is shoal rocky ground. In 1759 the Main strait was preferred as being shorter and safer on the through voyage from west to east; in 1797 Keppel harbour was considered too narrow for large ships; in 1822 the entrance was said to be narrow and difficult; and in 1826 a passage of the waterway was considered a very dangerous experiment.¹ In 1848 improvements began to be made; and nowadays the waterway is habitually used by large ships.

Lung ya strait

According to the Chinese texts, ships must pass along the north side of the strait, avoiding the south side with the dangers called Niu shih rock and Liang san rock. This does not apply appropriately to Keppel harbour, where, on entering from the west, ships had to keep closer to the south side, then keep in the middle or closer to the north shore, and finally bear south-east to avoid the shoals off Tanjong Pagar. But it applies appropriately to the passage through Singapore Main strait south of Pulau Satumu, where large ships can pass half a mile off the island; and vessels are advised to keep on the northern side of the strait, which is about 3 miles wide. Again, according to the Chinese texts, the depth in the northern side of the strait may be as much as 30 fathoms. This does not apply appropriately to Keppel harbour, where the greatest recorded depth was 12 fathoms, and it is unlikely that depths were much greater. But it applies appropriately to the Main strait, where depths of 46 and 51 fathoms are recorded within a mile of Pulau Satumu.

Ch'ang yao island

The Mao K'un Map shows that the ship's track ran south of Ch'ang yao island; several Chinese texts support this; and there is no evidence to rebut it. This does not apply appropriately to the identification of Ch'ang yao island with Pulau Blakang Mati in Keppel harbour; since there the ship's track would run north of Pulau Blakang Mati which forms the south side of Keppel harbour. But it applies appropriately to the identification of Ch'ang yao island with Pulau Satumu, since the route through the Main strait lies south of Pulau Satumu. Again, a Chinese text in a note on Niu shih rock referring to entry of the strait from the east, says 'Carefully enter the strait. See Ch'ang yao island.' This implies that Ch'ang yao island was sighted at the moment when or at some time after the ship entered the strait. This does

¹ Gibson-Hill, pp. 180-97.

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not apply appropriately to Keppel harbour, since if Ch'ang yao island had been Pulau Blakang Mati, the hill called Mount Serapong, 292 feet high, near the north-eastern side of the island, would have been readily visible for at least an hour before the vessel entered the strait. But it applies appropriately to an entry into the passage between Buffalo rock and Pulau Satumu, since the ship would not bring Pulau Satumu abeam until it had travelled for more than another 2 miles.

Bearings

For the eastward journey from Karimun island to Ch'ang yao island, the average figure given by the Chinese texts is $[120^{\circ}]$. We find that the bearing from point *K* to point *R* is 93° ; and the bearing from point *K* to Keppel Harbour is $76\frac{1}{2}^{\circ}$. Thus the figure for the journey towards Pulau Satumu is nearer to the Chinese texts by $16\frac{1}{2}^{\circ}$.

For the eastward journey from Lung ya strait to Pedra Branca, the average figure given by the Chinese texts is $[89^{\circ}]$. We find that the bearing from point *R* to point *H* is 73° ; and the bearing from Keppel harbour to point *H* is $80\frac{1}{2}^{\circ}$. Thus the figure for the journey from Keppel harbour is nearer to the Chinese texts by $7\frac{1}{2}^{\circ}$.

For the westward journey from Pedra Branca to Lung ya strait, the average figure given by the Chinese texts is $[271^{\circ}]$. We find that the bearing from point *H* to point *R* is $253\frac{1}{2}^{\circ}$; and the bearing from point *H* to Keppel harbour is $260\frac{1}{2}^{\circ}$. Thus the figure for the journey to Keppel harbour is nearer to the Chinese texts by 7° .

For the westward journey from Ch'ang yao island to Karimun island, the average figure given by the Chinese texts is $[290^{\circ}]$. We find that the bearing from point *R* to point *K* is $273\frac{1}{2}^{\circ}$; and the bearing from Keppel harbour to point *K* is $256\frac{1}{2}^{\circ}$. Thus the figure for the journey from Pulau Satumu is nearer to the Chinese texts by 17° .

The figures are somewhat more favourable for the identification of Lung ya strait with the Main strait, but it does not seem safe to draw any definite conclusions from them since certain unknown factors are involved. At the same time it should be pointed out that, whereas Pulau Satumu and Pedra Branca are small objects, Little Karimun island contains a mountain rising to 1,237 feet, which is easily visible from a distance of 25 miles; and navigators leaving either Keppel harbour or Pulau Satumu could see exactly what point they were making for.

When bearings are being considered, it is necessary to bear in mind that the bearings given in the sailing directions represent the course which, according to the accumulated experience of mariners, must be steered in order that, after the winds, tides, and currents have had their effect, the ship will attain the desired terminus. The course laid down will not necessarily

Lung ya strait

show the bearing from point of departure to terminus as it appears in the chart. Near the Karimun islands at the western end of Singapore strait tides from three directions meet; and the tides which here 'run any and every way' would soon carry a slow-moving vessel many miles off the right line; Best often found it necessary to steer 20° – 30° one side or the other in order to make good the proper line.¹

The four instructions given for the voyage from Ch'ang yao island to Karimun island are: (1) Steer [$297\frac{1}{2}^{\circ}$]; (2) steer [$267\frac{1}{2}^{\circ}$] and then [$297\frac{1}{2}^{\circ}$]; (3) steer [$267\frac{1}{2}^{\circ}$] and then [$297\frac{1}{2}^{\circ}$]; (4) steer [$297\frac{1}{2}^{\circ}$].

An initial course of $297\frac{1}{2}^{\circ}$ is quite impossible from Keppel harbour, since it would take the ship right into Singapore island; and the course would have to be altered by more than 27° to 270° in order to clear the shoals off Tanjong Piai, which the instructions tell the navigator to avoid. On the other hand, an initial course of $267\frac{1}{2}^{\circ}$ from Pulau Satumu would take the ship into Pulo Nipa, Tree island; but a slightly more northerly course of $271\frac{1}{2}^{\circ}$ would clear Pulo Nipa; and it therefore seems fair to say that the route from Pulau Satumu is more probable than the route from Keppel harbour.

Ch'ang yao island and Lung ya strait

Since Liang san rock is the danger to the south of both Ch'ang yao island and Lung ya strait, one may reasonably conclude that these two places must have been fairly close together. Since (except in certain ambiguous cases) the times of travelling from and to Karimun island are always given to and from Ch'ang yao island, and since the times of travelling from and to Pedra Branca are always given to and from Lung ya strait, one may reasonably conclude that Ch'ang yao island lay further west than Lung ya strait.

In the above interpretation of the Chinese texts, the editor has found reasons for concluding that the stipulated course (a) could not have run through Keppel harbour, and (b) ran south of Pulau Satumu through Singapore Main strait. Since Pulau Satumu is the most southerly island reached by vessels passing through Singapore Main strait, and since, according to two Chinese texts, Ch'ang yao island was the most southerly island reached by junks proceeding on the stipulated course, the editor identifies Ch'ang yao island with Pulau Satumu. And since Lung ya strait was close to and slightly further to the east than Pulau Satumu, the editor identifies Lung ya strait as the fairway between Pulau Satumu and the dangers lying to the east and south of it.

¹ The present writer enjoyed the benefit of Best's advice in 1937; it would scarcely be possible to have a more helpful adviser; Best was a science graduate, and a surveyor by profession; also, being an enthusiastic yachtsman, he had a good knowledge of Malayan waters.

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Kuan island and P'i p'a island

As has already been noted, the evidence represents that these islands lay north of the track, that Kuan island was fairly close to Lung ya strait, and that the ship when abeam of Kuan island changed course from $[95^{\circ}]$ to $[87\frac{1}{2}^{\circ}]$, that is, $7\frac{1}{2}^{\circ}$ more northerly, when travelling from Lung ya strait to Pedra Branca. Since the course from Keppel harbour to Pedra Branca has not got two islands on its north side, it follows that this is not the course which was stipulated in the evidence. Wheatley rejected the evidence; he identified Kuan island with Bukit Pengerang, and identified P'i p'a island with Pulau Brani, situated in Keppel harbour and on the south side of the course which he favoured.¹

On the other hand, a ship following a course from Pulau Satumu to Pedra Branca has several islands on the north side; the most easterly danger in this vicinity is Pulau Tembakul, 87 feet high; no reasonable navigator would change course to the north much before reaching that island, because he would find himself in an area containing numerous islands and shoals; and Pulau Tembakul would be the first danger encountered by a ship proceeding westward. The editor therefore identifies Kuan island with Pulau Tembakul.

P'i p'a island is represented as lying close to the course between Ch'ang yao island and Kuan island; on the evidence it is reasonably certain that it must have been either Pulau Sakijang Pelepah or Pulau Sakijang Bendera; the former is the more easterly and the higher; a lighthouse has been erected on the island, and it constitutes a guide with reference to which westward-bound vessels alter course in order to pass southward of St John islands. The editor therefore identifies P'i p'a island with Pulau Sakijang Pelepah, and suggests that the Chinese name P'i p'a may be a modified form of the Malay name Pelepah.

Sha t'ang shoal, Niu shih rock and Liang san rock

According to the Chinese texts, when the ship travelling eastward brought Ch'ang yao island abeam, the dangers on the south side were Sha t'ang shoal and Liang san rock; and when the ship proceeded to go through Lung ya strait, the dangers on the south side were Liang san rock and Niu shih rock. Since Ch'ang yao island is identified with Pulau Satumu, it follows that Lung ya strait was quite close to Pulau Satumu and that the three dangers, reading from west to east, Sha t'ang shoal, Liang san rock, and Niu shih rock, lay fairly close together along the south side of Singapore Main strait. The names and the positions of Liang san rock and Niu shih rock enable us to identify them with reasonable certainty.

¹ Wheatley, *Khersonese*, p. 96.

Lung ya strait

Liang san means 'parasol', and the Chinese nowadays apply the name Parasol island to Poulo Labon (Little Ganymede), a bare conical hill, 95 feet high, lying on the south side of the strait, about 4 miles from Pulau Satumu in direction 144°. I therefore identify Liang san rock with Poulo Labon.

Niu shih means 'buffalo dung', and the Chinese nowadays apply the name Buffalo Dung rock to Buffalo rock, called by the Malays Batu Kerbau, 'Buffalo rock' or Batu Hitam, 'Black rock', a rock 30 feet long and 5 feet high, which lies on the southern side of Singapore Main strait, 2 miles east of the longitude of Poulo Labon. The editor therefore identifies Niu shih rock with Buffalo rock.

Sha t'ang shoal was located west of Poulo Labon, and is certainly in the chain of islets and reefs extending for about 5 miles in direction north-west to south-east and forming the southern side of Main strait. For the navigator proceeding through the Main strait the most important of these dangers was the north-westernmost, a coral reef about a mile long, near the south-eastern end of which lay an islet called Poulo Nipa. The editor therefore identifies Sha t'ang shoal with Poulo Nipa reef.

It may be pointed out that since these dangers are shown to lie on the south side of Lung ya strait, those who favour the identification of that strait with Keppel harbour will have to locate these places on the south side of the fairway through Keppel harbour.

P'a nao island

This was not regarded as a danger, and therefore lay some distance away from the course. We know nothing about it except that it was marked east of Niu shih rock and south of P'i p'a island in the Mao K'un Map. P'a nao island is the most easterly of the islands marked in this part of the strait, apparently because the vessel was now drawing away from the south side. Judging by its position, we may reasonably identify it with Poulo Anak Sambo, the most northerly, the most easterly, and the highest (100 feet) of the islands in this vicinity. The name must be a transliteration of a Malay word, perhaps *perahu* (*prau*, *prao*, *proa*).

Tan-ma-hsi strait

There are two references to this strait. The 'Shun-feng' (f. 14) in the note on Pai chiao [Pedra Branca] observes that after Ch'ang yao island had been sighted, the ship 'on the inside' passed Tan-ma-hsi strait, where passengers could change ship. In other words, as the ship was proceeding on a course from Pedra Branca towards Lung ya strait, another strait, called Tan-ma-hsi strait, was situated further north than this course. And Chang Hsieh (p. 120), when referring to the passage through Lung ya strait, on the way to Karimun

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island, mentions that Liang san rock lay on the south side of the strait, and then adds 'Again, you pass Tan-ma-hsi strait.' The editor interprets these two texts to mean that, as the ship was being navigated on a course from Pedra Branca to Karimun island, a strait called Tan-ma-hsi strait lay further north than the course, and that one end of this strait was passed on the voyage from Pedra Branca to Lung ya strait, and the other end of Tan-ma-hsi strait was passed on the voyage from Lung ya strait to Karimun island.

We need not consider the possibility that Tan-ma-hsi strait was Johor strait; for it cannot be imagined that passengers would travel 13 miles from Singapore to change ships in Johor strait. On the contrary, the name Tan-ma-hsi strait associates the strait with Tan-ma-hsi or Singapore, and passengers would naturally change ships at Singapore where we know that there was a Chinese settlement in 1350. But since Tan-ma-hsi strait is stated to be situated further north than Lung ya strait, it follows that Lung ya strait could not have been Keppel harbour, because there is no other east-west passage situated further north than Keppel harbour except Johor strait, which can safely be excluded. The editor concludes that Tan-ma-hsi strait was an east-west passage the ends of which were 'passed' not far from Pedra Branca and not far from Karimun island, respectively; but there is no evidence to show whether the eastern portion of Tan-ma-hsi strait passed to the south of Pulau Blakang Mati, or to the north of Pulau Blakang Mati through Keppel harbour.

Piracy

In the above argument the editor has mentioned reasons for thinking that the required course did not lie through Keppel harbour. Another potent reason is that Keppel harbour was a hot-bed of pirates; in 1350 it was stated to be the home of 300 proas which waylaid merchant ships, slaughtered the crews, and stole the merchandise; Fei Hsin in 1436 gave the same account; and Chang Hsieh in 1618 said that the *po* ships did not travel through Lung ya strait at night because of the multitude of robbers.

The editor finds it impossible to believe that in 1433 Chinese merchant ships would ordinarily prefer to pass through this narrow channel where they would be almost helpless; since one entrance was only 100 yards wide, and the other entrance could be blocked up. Allowing that Portuguese ships passed through Keppel harbour in 1589 when Linschoten wrote, or even in 1526 according to Gibson-Hill, it would be most unsafe to assume that Chinese merchant junks normally did so in 1433.¹ (The late Sir Richard Winstedt emphasized the impossibility of merchant ships normally passing

¹ See Gibson-Hill, pp. 170, n. 14, 178, 190.

Lung ya strait

through Johor strait, $\frac{3}{4}$ of a mile wide, because of danger from pirates; how much more strongly does the objection apply to Keppel harbour with an entrance 100 yards wide.)

CONCLUSIONS FROM THE EVIDENCE OF FOUR CHINESE TEXTS

(1) In 1433 Chinese merchant ships ordinarily passed between the South China Sea and Malacca strait through Singapore Main strait.

(2) Tan-ma-hsi (Singapore) and Ta-na-ch'i island (perhaps Bukit Pengerang) were situated on the island of Singapore and on the mainland of the Malay peninsula, respectively.

(3) Ch'ang yao island (Pulau Satumu, Raffles light), P'i p'a island (Pulau Sakijang Pelepah), and Kuan island (Pulau Tembakul) were situated on the north side of the course laid down.

(4) The course laid down through Lung ya strait ran south of Pulau Satumu through Singapore Main strait.

(5) Lung ya strait was the fairway between Pulau Satumu on the one side, and Buffalo rock and Poulo Labon on the other side.

(6) Sha t'ang shoal (Poulo Nipa reef), Liang san island (Poulo Labon), Niu shih rock (Buffalo rock), and P'a nao island (Poulo Anak Sambo) lay on the south side of the course laid down.

(7) Lung ya strait was more probably Singapore Main strait than Keppel harbour, because (a) it is unlikely that Keppel harbour contained a depth of 30 fathoms as mentioned in the Chinese texts, (b) the figures for the courses to be steered are somewhat more favourable to the former identification.

(8) The identification of Lung ya strait with Keppel harbour is impossible, because:

(a) according to a Chinese text, Ch'ang yao island was sighted at the moment when or at some time after the ship entered Lung ya strait, whereas if Lung ya strait had been Keppel harbour bounded on the south by Ch'ang yao island, the latter would have been sighted at least one hour previously;

(b) in several Chinese texts the navigator was instructed to sail on the north side of the fairway through Lung ya strait, whereas in proceeding east through Keppel harbour the navigator had to sail first on the south side of the passage, then in the middle or nearer to the north side, and finally turn to the south-east;

(c) several Chinese texts represented that the required course lay south of Ch'ang yao island, whereas if Lung ya strait had been Keppel harbour bounded on the south by Ch'ang yao island, the course would lie north of Ch'ang yao island;

(d) two Chinese texts represented that on the north side of the course

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through Lung ya strait there lay another strait called Tan-ma-hsi [Singapore] strait, whereas if Lung ya strait were Keppel harbour, no reasonably possible strait exists in this vicinity;

(e) a Chinese text represented that on the north side of the course from Lung ya strait to Pedra Branca there lay an island called Kuan island, whereas if Lung ya strait were Keppel harbour, no island exists on the north side of the course;

(f) it is impossible to contemplate that the course taken by Chinese merchant junks would ordinarily lie through Keppel harbour, which was a narrow land-locked passage infested by pirates.

The gist of the evidence in the Chinese texts has been set out in order that the reader may weigh it for himself; the texts may be unworthy of credit, or the reasoning may be unsound; the editor greatly regrets his inability to follow Wheatley's reconstruction and will readily change his opinion when satisfied that the evidence so requires.

APPENDIX 5

THE VOYAGE FROM KUALA PASAI TO BERUWALA

The anonymous author of 'Shun-feng hsiang-sung' in enumerating the salient points on the voyage from Indonesia to the Persian Gulf includes this sequence of fourteen places which are here set out with suggested identifications.

Su-wen-ta-la (Semudera, Pasai)
Nan-wu-li yang (Lamuri ocean)
Ch'ieh-nan-mao (Poulo Weh)
Lung hsien hsü (Poulo Rondo)
Ts'ui lan hsü (Nicobar islands)
Nan-wu-li yang (Lamuri ocean)
Hsi-lan shan (Ceylon)
Tan shui ma (Little Basses reef)
T'ieh ch'an hsü (Great Basses reef)
Ta fo t'ang (Dondra head)
Ma-li-k'an (Weligama)
Ya-li hsü (Galle)
Pieh-lo-li (Beruwala)
Kao-lang-wu (Colombo)

There can be no doubt about the identification of Pasai, the Lamuri ocean, the Nicobar islands, Ceylon, Dondra head, and Colombo. The other places require explanation. We may note that the 'Lamuri ocean' was considered to extend both to east and west of the Nicobar islands. It has to be remembered that the westward voyage was made with the north-east wind, and the eastward voyage with the south-west wind. The mileage will depend on the exact course which was followed, and on this matter opinions may well differ.

A. BETWEEN KUALA PASAI AND THE NICOBAR ISLANDS

On this stage we are concerned to identify Ch'ien-nan-mao, *kelembak*, usually called 'Mao mountain', and Lung hsien island, 'Dragon Spittle (Ambergris) island'. The Mao K'un Map shows that these two places were

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islands, and represents the ship's course as passing north of them. Lung hsien island lay between the Nicobar islands and Mao mountain;¹ it stood alone;² and at a certain season of the year ships should pass to the south of it.³

According to the sailing directions in 'Shun-feng' the ship sailed due north (360°) from Kuala Pasai until the mountains were left far behind; the course was then changed to $307\frac{1}{2}^{\circ}$, and Mao mountain was reached after 12 watches; the author does not state the direction or the time on the voyage between Mao mountain and Lung hsien island; from the latter place the direction was $292\frac{1}{2}^{\circ}$ and then 285° , and the Nicobar islands were reached after 10 watches, this part of the voyage being described as 'crossing the ocean'.⁴

According to Huang Sheng-tseng the voyage took 12 watches to what he calls 'the mountain of Nan-mao', thence $4\frac{1}{2}$ watches to Lung hsien island, and thence 10 watches to the Nicobar islands.⁵ According to the sailing directions on the Mao K'un Map the direction to Lung hsien island was $307\frac{1}{2}^{\circ}$ and the voyage took 12 watches, and thence to the Nicobar islands the direction was $292\frac{1}{2}^{\circ}$ and the voyage took 10 watches.

One presumes that from Kuala Pasai the ship sailed north for about 7 miles, and therefore reached a point situated in $5^{\circ} 16' N$, $97^{\circ} 13' E$; we may call this 'point *P*'. One presumes that at the western end of this stage the ship sailed to a point 7 miles due south of Pygmalion point on Great Nicobar island, that is, to a point situated in $6^{\circ} 38' N$, $93^{\circ} 50' E$; we may call this 'point *N*'. From modern books and charts, for instance, the *Malacca Strait Pilot* and British Admiralty Charts 70 and 2777, we can ascertain that the direction from point *P* to point *N* is 292° , that the most northerly of the mid-ocean islands between Sumatra and the Nicobar islands are Poulo Weh and Poulo Rondo, and that Poulo Rondo stands alone.

On the evidence the editor identifies Mao mountain with Poulo Weh and Lung hsien island with Poulo Rondo. Gerini,⁶ while identifying Mao mountain with Poulo Weh, insisted that Lung hsien island, which he called 'Lung-yen', was Poulo Bras, modern Breueh; the editor considers this impossible, since (i) Breueh does not stand alone, but almost adjoins other islands on the south, and (ii) the pilot could not reasonably direct navigators to pass south of Breueh, since the strait, Aroih Lam Pujang (Lam Puyang strait), is only $1\frac{1}{2}$ cables wide and contains shoals.⁷ The editor makes the following calculations: from Kuala Pasai, course 360° , for 7 miles to point *P*, taking probably 2 watches; from point *P*, course 292° , to a point abreast

¹ 'Shun-feng', ff. 45 v, 46.

² Fei Hsin, ch. 1, pp. 26, 27; Rockhill, Part II, p. 159.

³ 'Shun-feng', f. 14 v.

⁴ 'Shun-feng', ff. 45 v, 46.

⁵ Huang Sheng-tseng, ch. 2, f. 9.

⁶ Gerini, p. 691.

⁷ *Malacca Strait Pilot*, pp. 52-3.

Kuala Pasai to Beruwala

of Kulam (2,156 feet) on Poulo Weh, 121 miles, taking 12 watches; thence, on the same course, to a point abreast of Poulo Rondo, 15 miles, taking probably 2 watches; thence, on the same course, to point *N*, 84 miles, taking 10 watches. On these calculations, the voyage of 227 miles from Kuala Pasai to the Nicobar islands took 26 watches.

B. FROM THE NICOBAR ISLANDS TO DONDRA HEAD

On this stage of the journey the Chinese ships crossed almost due west till they sighted the south-eastern coast of Ceylon, and then followed the coast to its most southerly point. Of the two places to be identified, Tan shui ma, 'Fresh Water Horse', is not mentioned again in the Chinese texts, and we know nothing about it except that it lay in the vicinity of Shih ch'eng rocks, 'Stone Wall rocks'. No difficulty is presented by T'ieh ch'an island, 'Iron Pincers island', or, according to another reading, 'Iron Anvil island'; ships steering due east from Dondra head reached it after 8 watches, and the voyage in the opposite direction also took 8 watches;¹ hence we may safely identify it with the Great Basses reef, 6° 10' N, 81° 28' E; and Chu p'ai rocks, 'Bamboo Row rocks', or, according to another reading, 'Bamboo Tablet rocks', always associated with T'ieh ch'an island, will be the Great Basses ridge. The Chu p'ai rocks are marked on the Mao K'un Map.

The geography of southern Ceylon may be studied in the *Bay of Bengal Pilot* and British Admiralty chart 813. The Chinese texts mention several sea-routes across the Bay of Bengal. According to Ma Huan, ships from the Nicobar islands sailed due west, sighted Ying ko tsui mountain, 'Parrot's Beak mountain', after 7 days, and reached Fo t'ang mountain, 'Buddha Hall mountain' (Dondra head) after another 2 or 3 days.

One presumes that this was the usual route, and must therefore attempt to trace it. In 'Shun-feng' we find the following directions: from the Nicobar islands steer 330° for 10 watches and 292½° for 50 watches, sight Ying ko tsui in Ceylon, avoid fouling Shih ch'eng rocks, follow the coast for 20 watches, make Chu p'ai, 'Bamboo Tablet', and T'ieh ch'an island, 'Iron Pincers island', steer 270° and then 262½° for 8 watches, make Ta fo t'ang, 'Great Buddha hall'.² The editor has already identified T'ieh ch'an island with Great Basses reef, and Ta fo t'ang with Dondra head. The directions do not give us precise information as to the location of Ying ko tsui, but fortunately we have an account in which the mountain is approached from a different direction.

Huang Sheng-tseng gives brief details of a voyage from Bengal to Male in the Maldive islands by way of Ceylon; one presumes that the ship started from Chittagong; in that case the direction to a point 5 miles east of Little

¹ 'Shun-feng', ff. 45 v, 46.

² 'Shun-feng', f. 45 v.

Appendix 5

Basses reef will be 211° ; the ship eventually reached a point at which the altitude of the Pole Star was $1\frac{1}{2}$ fingers; this point will be in latitude $6^{\circ} 31' N$ if the altitude of the Pole Star at Dondra head was 1 finger, and it will be in latitude $6^{\circ} 55' N$ if the altitude of Beta and Gamma of Ursa Minor at Dondra head was $7\frac{1}{2}$ fingers; hence we take the middle figure of $6^{\circ} 43' N$.¹ Huang adds that after reaching this point, the ship went on to pass Ying ko tsui, and after a further voyage of 5 watches reached T'ieh ch'an island.

The editor understands Huang to mean that Ying ko tsui was 'passed' at the moment when it was abeam, that is, at right angles to the course. At that moment the ship was at a point from which after a voyage of 5 watches it reached T'ieh ch'an island. We know that between T'ieh ch'an island and Dondra head the ship travelled 58 miles in 8 watches; it may be presumed that it travelled at about the same speed before reaching T'ieh ch'an island; if so, in 5 watches it travelled about 36 miles; so that at the moment when it 'passed' Ying ko tsui its position was in latitude $6^{\circ} 35' N$ approximately. Hence Ying ko tsui must have been a conspicuous mountain which in about $6^{\circ} 35' N$ lay at right angles to the course. We find such a mountain in Namunakuli, a sharp peak 6,680 feet high, and visible at a great distance; a ship travelling on a course of 211° from Chittagong would bring this mountain abeam in latitude $6^{\circ} 30'$, and from this point ($6^{\circ} 30' N$, $81^{\circ} 50' E$) the run is 30 miles to a point 5 miles east of Great Basses reef.

We gather from 'Shun-feng' that Shih ch'eng rocks were comparatively close to the point where Ying ko tsui was 'passed', hence the editor identifies these rocks with Little Basses ridge; Tan shui ma must therefore be Little Basses reef ($6^{\circ} 24' N$, $81^{\circ} 43' E$); the author states that the rocks should be passed on the 'outside', that is, on the eastern side.² Since the run from Little Basses reef to Great Basses reef is about 21 miles, the reading '20 watches' is probably a copyist's error for '3 watches'; this error may easily be made in copying Chinese characters.

Ships crossing from the Nicobar islands would proceed more or less along the parallel of $6^{\circ} 30' N$, steering for Namunakuli, and when about 8 miles from land, that is, when in $6^{\circ} 30' N$, $81^{\circ} 50' E$, approximately, would change course to pass about 5 miles east of Little Basses reef and of Great Basses reef, and about 5 miles south of Dondra head. The editor makes the following calculations: from $6^{\circ} 38' N$, $93^{\circ} 50' E$, steering 270° , to $6^{\circ} 30' N$, $81^{\circ} 50' E$,

¹ 'Shun-feng', f. 47, gives the altitude of the Hua kai stars at Dondra head as 8 fingers; this was equivalent to a Pole Star altitude of 1 finger; 1 finger represented $1^{\circ} 36'$; the latitude of Dondra head is $5^{\circ} 55' N$. The *Muhit* (Ferrand, *Textes*, vol. II, p. 532) gives the altitude of Beta and Gamma of Ursa Minor at Dondra head as $7\frac{1}{2}$ fingers; the altitude of the Hua kai stars was the same as that of Beta and Gamma of Ursa Minor.

² 'Shun-feng', f. 14v.

Kuala Pasai to Beruwala

713 miles, in 60 watches; from the last-named point to a point 5 miles south of Dondra head, 88 miles, in 13 watches. The journey from the Nicobar islands to Dondra head, 801 miles, would thus take 73 watches.

C. FROM DONDRA HEAD TO BERUWALA

The last stage of the voyage presents little difficulty. Huang Sheng-tseng says that the run from Dondra head to Ya-li took 5 watches,¹ and the author of 'Shun-feng' confirms this time for the voyage in both directions.² Since the speed would be somewhat less than on the run from Great Basses reef to Dondra head, 58 miles in 8 watches, we should expect the ship to travel about 30 miles in 5 watches; 26 miles from Dondra head lies Galle, and no doubt this is the Ya-li of the Chinese texts. Since Ma-li-k'an (in Amoy Hokkien 'Beh-li-kham') lies between Dondra head and Galle, no doubt it represents the name Beligam, now Weligama. There remains Pieh-lo-li, bugbear of orientalist for over a century. To fix its location we now have the following relevant evidence; (a) Pieh-lo-li was south of Colombo,³ (b) there was an island in the vicinity,⁴ (c) the voyage from Dondra head to Galle took 5 watches, and the voyage from Galle to Pieh-lo-li took 10 watches,⁵ (d) the voyage from Pieh-lo-li to Galle took 10 watches, and the voyage from Galle to Dondra head took 5 watches.⁶ Since the times are identical in both directions, we are justified in concluding that the distances were approximately proportionate to the times.

On a course 5 miles from land, the distance from Dondra head to Galle is 26 miles; therefore, on a similar course, the distance from Galle to Pieh-lo-li should in theory amount to about 52 miles. Taking into account the facts that (a) the ship would have to run 5 miles to the coast, and (b) the distance travelled in 10 watches along the west coast of Ceylon would be about 41 miles,⁷ we ought to seek for Pieh-lo-li in the neighbourhood of 6° 27' 15" N. And this is precisely where we find Welmaduwa island (6° 27' 45" N), the only island between Colombo and Waal islet, which latter lies too far south to merit consideration. On Welmaduwa island is built the lighthouse known as Barberyn light.

On the evidence the editor does not hesitate to equate the name Pieh-lo-li with Berberyn or Barberyn, and he feels confident that the place may rightly be identified with the Pervily of Marignolli, Berberi of Barros, Verberijn of

¹ Huang Sheng-tseng, ch. 2, f. 7v.

² 'Shun-feng', ff. 45 v-46. This book has 'Ya-li-k'an' in two places; the last character should be omitted.

³ 'Shun-feng', f. 15.

⁴ 'Shun-feng', f. 15.

⁵ 'Shun-feng', f. 45 v.

⁶ 'Shun-feng', f. 46.

⁷ To travel 204 miles from Point de Galle to Cape Comorin took 50 watches ('Shun-feng', f. 46v).

Appendix 5

Linschoten, Berbelim of Bocarro, Biribirin or Verberin of de l'Isle, Barbarien of Dunn, Barbareen of Percival and of Cordiner, Berbryn of Horsburgh, Barbryn of Bennett, and Barbryn, Barbry, and Barberry of Tennent; the place was called Barawali in the *Muhit*, and the modern name is Beruwala.¹ Beruwala is a small port about 35 miles south of Colombo, with a considerable coasting trade; it has an anchorage for ships, and is safe for boat landing, even in the south-west monsoon.² Pieh-lo-li was the Chinese base in Ceylon, and was visited by Cheng Ho on six of his seven expeditions between 1405 and 1433; Pelliot was tempted to identify it with P'o-chih-li, a great port in the eighth century.³ It seems probable that archaeological investigation would yield the same variety of finds (Porcelain dishes and bowls, if not jars, vases, bottles, and coins) as have been obtained in Arabia and East Africa.

Owing to off-lying dangers, local knowledge would be required to bring ships to the anchorage of Beruwala; presumably the ships would pass to the north of Prompt rock and Goda gula, and anchor to the north of Nalla gula, at a distance of 1 mile or 2 miles from the shore. This would involve a journey of 42 miles, which took 10 watches, from Point de Galle; and the journey from Dondra head to Beruwala, taking 15 watches, covered 68 miles. For the whole voyage the distances and times are as follows: Kuala Pasai to the Nicobar islands, 227 miles, 26 watches; the Nicobar islands to Dondra head, 801 miles, 73 watches; Dondra head to Beruwala, 68 miles, 15 watches; and finally, from Kuala Pasai to Beruwala, 1,096 miles, 114 watches.⁴

¹ Yule and Burnell, p. 87*b*; Pelliot, 'Voyages', p. 308; Pelliot, 'Notes', p. 309; Ferrand, *Textes*, vol. II, p. 532.

² Yule and Burnell, p. 87*b*; *Bay of Bengal Pilot*, p. 103.

³ Pelliot, 'Voyages', p. 308, n. 3.

⁴ Rockhill wrote most unfortunate notes on the subject of this voyage; he was wrong in suggesting that the voyage from the Nicobar islands to Ceylon waters (713 miles) could be completed in 7 or 8 watches, also in stating that the voyage from the Nicobar islands to Ceylon took 19 watches according to Huang, also in identifying Pieh-lo-li with Beligam (Weligama), also in condemning Huang for allegedly placing Galle to the south of Beligam, also in saying that Ming authors knew nothing of Colombo; Rockhill, Part II, p. 378, nn. 1 and 2.

FOUR STELLAR DIAGRAMS

China has made a very remarkable contribution to the development of astronomical science, and possesses a rich literature which records the achievements of its scientists.¹ Great Chinese astronomers flourished in the fourth century B.C.; and China has a long and continuous tradition of celestial cartography.

Charts of the heavens were constructed in the third century of the Christian era; a manuscript star-map of about 940 is the oldest extant star-chart from any civilization, and the oldest printed Chinese star-chart, dating from 1094, is still in existence; whereas no other extant star-chart was composed prior to 1400. The Chinese grouped the stars in asterisms which differed from the constellations recognized by European astronomers; and the nomenclature of the Chinese asterisms grew up in almost complete independence of the West. By the first century A.D. the Chinese had discovered that the stars numbered 14,020, and that is almost the largest number which can be seen by unaided sight; while at the same time it was noted that seamen observed their own particular stars.

The stellar diagrams here considered appear in Mao Yüan-i's *Wu-pei chih*, chapter 240, folios 22 v-24. Stellar diagram no. 11 was reproduced by Phillips in 1885.² These very instructive and valuable diagrams are 'seamen's maps', and contain 'seamen's names' which do not appear in the standard lists of Chinese astronomers; that is, 'the first small star of Pei ch'en', 'Pu ssu star', 'Shui p'ing' ('Water Level'), and 'Teng lung ku' ('Lantern Frame').

No doubt these were 'the drawings . . . of the guiding stars' which were 'compared and corrected' on repeated voyages after 1403; and there can be little doubt that many other such drawings were supplied to the navigating officers on Cheng Ho's expeditions, but these are the only ones which are known to have survived. They show that the navigators ascertained their position by measuring the altitudes of certain stars close to the horizon in at least four different directions; thus the Chinese, who navigated primarily by

¹ In vol. III, pp. 171-461 of *Science and Civilisation in China* Dr J. Needham, F.R.S., has written what that eminent scholar modestly calls 'an orienting survey' on Chinese astronomy.

² Phillips, 'The Seaports of India and Ceylon', vol. XX (1885), p. 217.



Fig. 7. Stellar diagram I

Four stellar diagrams

compass-bearing and time, measured stellar altitudes to check their latitude; and this is precisely what the Portuguese did in their 'new sailing technique' after 1420 when Prince Henry called in Master John, the celebrated instrument-maker, to aid his pilots and sea-captains.

The main object of this appendix is to translate the contents of the stellar diagrams; and for convenience the editor has inserted the equivalent of fingers in degrees and the names of the stars. He has written such comments as seem necessary, and has suggested certain conclusions which seem to be indicated by the evidence; but, having no astronomy or higher mathematics, he is not competent to express a considered opinion on astronomical difficulties, or to check the consistency of the data in the diagrams. It is to be hoped that an astronomer will find time to examine these interesting diagrams.

STELLAR DIAGRAM NO. I

FROM DEOGARH IN INDIA TO HORMUZ IN PERSIA

Translation

In the introduction

'Directions for crossing the ocean.

You see the Pei ch'en star [Polaris] is 11 fingers [high, $17^{\circ} 40'$], and the Teng lung ku stars [Crux] $4\frac{1}{2}$ fingers [high, $7^{\circ} 13'$].

You see, on the east side, the Chih nü stars [Lyra] 7 fingers [high, $11^{\circ} 14'$]; [this measurement] serves as a base.

You see in the south-west the Pu ssu stars [Formalhaut?] 9 fingers [high, $14^{\circ} 27'$], and you see in the north-west the Pu ssu stars [Beta of Pegasus?] 11 fingers [high, $17^{\circ} 40'$].

Sailing from Ting-te-pa-hsi [Deogarh], on reaching Hu-lu-mo-ssu [Hormuz] you see the Pei ch'en star [Polaris] 14 fingers [high, $22^{\circ} 29'$].'

In the diagram

[On the north]

'On crossing the ocean from Ting-te-pa-hsi [Deogarh], the guiding star, the Pei ch'en star [Polaris], is 7 fingers [$11^{\circ} 14'$] above the level of the water. On reaching Sha-ma-ku¹ mountain [Jabal Quraiyat], you see the Pei ch'en star [Polaris] is 14² fingers [$22^{\circ} 29'$] above the level of the water.'

[On the east]

[On the east side the Chih nü stars [Lyra] are 7 fingers [$11^{\circ} 14'$] above the level of the water.'

¹ This should be 'Sha-ku-ma'.

² This should be '11 fingers' [$17^{\circ} 40'$].

Appendix 6

[On the south]

'The two stars of Nan men [Centaurus] are 6 fingers [$9^{\circ} 38'$] above the level of the water.'

On crossing the ocean from Ting-te-pa-hsi [Deogarh], the Teng lung ku stars [Crux] are $8\frac{1}{2}$ fingers [$13^{\circ} 39'$] above the level of the water.

At Sha-ku-ma mountain [Jabal Quraiyat] the Teng lung ku stars [Crux] are $4\frac{1}{2}$ fingers [$7^{\circ} 13'$] above the level of the water.'

[On the west]

'In the south-west the Pu ssu stars [Formalhaut?] are 9 fingers [$14^{\circ} 27'$] above the level of the water.

In the north-west the Pu ssu stars [Beta of Pegasus?] are 11 fingers [$17^{\circ} 40'$] above the level of the water.'

Comment

This stellar diagram relates to the voyage from Deogarh harbour ($16^{\circ} 23' N$) in India where the altitude of Polaris was 7 fingers ($11^{\circ} 14'$), across to Jabal Quraiyat ($23^{\circ} 10' N$) in Arabia where the altitude was 11 fingers ($17^{\circ} 40'$), and then northward to Hormuz ($27^{\circ} 03' N$) in Persia where the altitude was 14 fingers ($22^{\circ} 29'$).

The introduction seems to begin in the middle of a sentence. The first measurement, a Pole-Star altitude of 11 fingers, must have been made at Sha-ku-ma mountain, since the figure of 11 fingers is confirmed by stellar diagram no. IV, and 'Shun-feng' (f. 48) confirms that the altitude of Teng lung ku (Crux) was $4\frac{1}{2}$ fingers in the latitude of this mountain. For the suggested identification of the Pu ssu stars see stellar diagram no. II.

Ting-te-pa-hsi is the 'Dandabasi' of the *Muhit*,¹ and the 'dendbasya' of the map of about 1510,² now Deogarh on the west coast of India. Sha-ma-ku mountain should read 'Sha-ku-ma mountain' as below in this stellar diagram, as in stellar diagram no. IV, and as in 'Shun-feng'; and the figure '14' fingers should read '11' fingers as above in this stellar diagram, and as in stellar diagram no. IV.

Sha-ku-ma mountain, Jabal Quraiyat, 6,230 feet high, was reached after 5 watches by a ship sailing in a south-easterly direction from Muscat.³

¹ Ferrand, *Textes*, vol. II, p. 522.

² Cortesão, vol. I, p. 55, n. 1.

³ 'Shun-feng', f. 48; and see British Admiralty Chart 2851.

Four stellar diagrams

STELLAR DIAGRAM NO. II FROM CEYLON TO KUALA PASAI IN SUMATRA

Translation

In the introduction

'Map of the guiding stars when crossing the ocean on the return from Hsi-lan mountain [Ceylon] to Su-men-ta-la [Semudera].

The guiding stars when you are just returning in a suitable month across the Nan-wu-li [Lamuri] Ocean.

The Hua kai stars [50 of Cassiopeia?] are 8 fingers [high, $12^{\circ} 51'$].

The Pei ch'en star [Polaris] is 1 finger [high, $1^{\circ} 36'$].

The Teng lung ku stars [Crux] are $14\frac{1}{2}$ fingers [high, $23^{\circ} 18'$].

The two stars of the Nan men [Centaurus] are 15 fingers [high, $24^{\circ} 06'$].

In the north-west the Pu ssu stars [Beta of Pegasus?] are 4 fingers [high, $6^{\circ} 25'$]; [this measurement] serves as a base.

In the north-east the Chih nü stars [Lyra] are 11 fingers [high, $17^{\circ} 40'$], level with Erh mountain (?).¹

In the diagram

[On the north]

'The Hua kai stars [50 of Cassiopeia?] are 8 fingers [$12^{\circ} 51'$] above the level of the water.

The Pei ch'en star [Polaris] is 1 finger [$1^{\circ} 36'$] above the level of the water.'

[On the east]

'In the north-east the Chih nü stars [Lyra] are 11 fingers [$17^{\circ} 40'$] above the level of the water.'

[On the south]

'The two stars of the Nan men [Centaurus] are level and are 15 fingers [$24^{\circ} 06'$] above the level of the water.

The Teng lung ku stars [Crux] are exactly $14\frac{1}{2}$ fingers [$23^{\circ} 18'$] above the level of the water.'

[On the west]

'In the south-west the Pu ssu stars [Formalhaut?] are 4 fingers [$6^{\circ} 25'$] above the level of the water.

In the north-west the Pu ssu stars [Beta of Pegasus?] are 4 fingers [$6^{\circ} 25'$] above the level of the water.'

¹ Probably the text is corrupt and the meaning is that the stars were 11 fingers above the horizon.

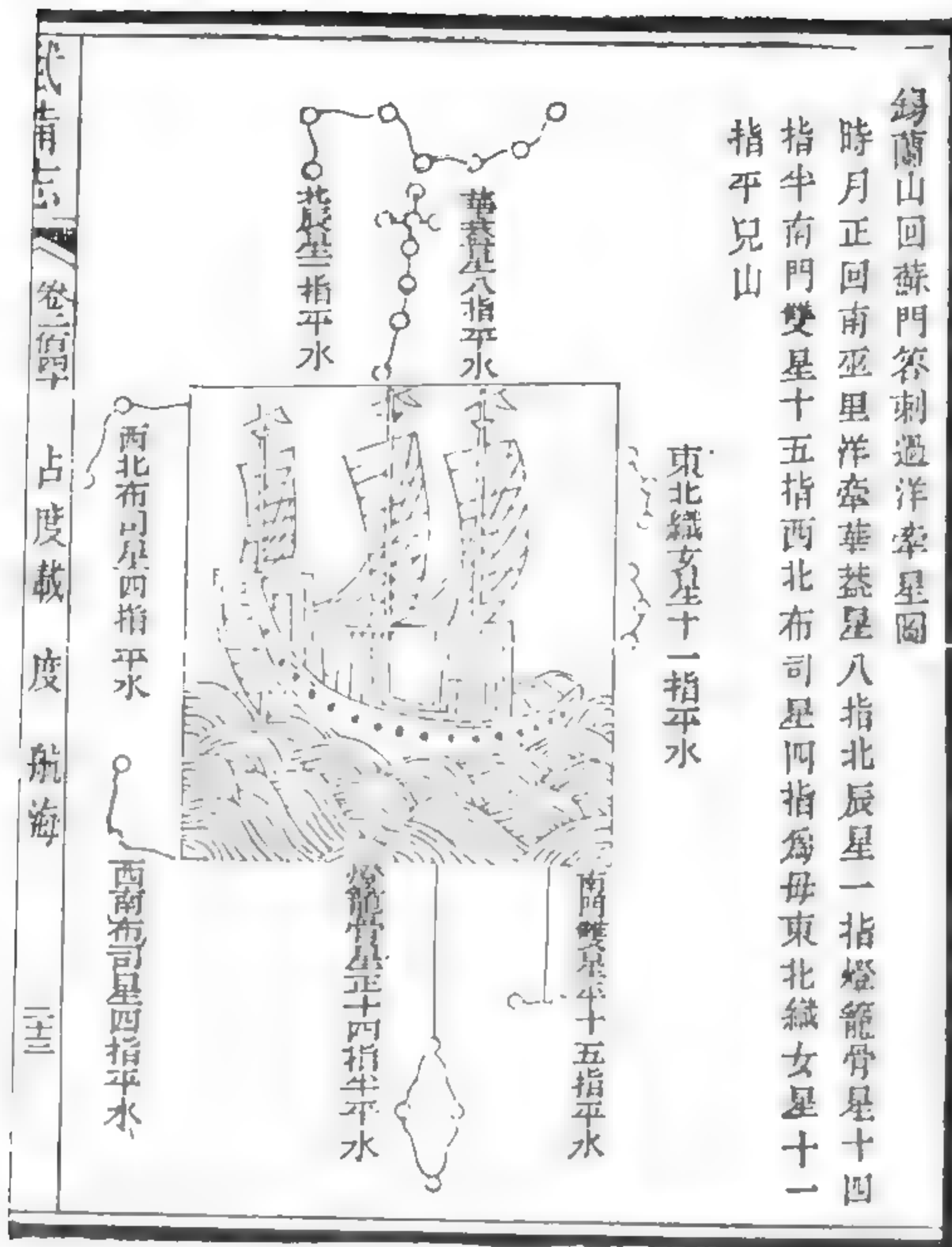


Fig. 8. Stellar diagram II

Four stellar diagrams

Comment

Hsi-lan mountain is Ceylon. Chinese ships sometimes followed the east coast of Ceylon to about latitude $6^{\circ} 56' N$, and then steered $112\frac{1}{2}^{\circ}$ and later 150° to sight the Nicobar islands, Poulo Rondo, and Poulo Weh; and sometimes steered $82\frac{1}{2}^{\circ}$ from Dondra head to Poulo Weh. Su-men-ta-la is Semudera, some 5 miles up the Krueng Pasai on the north coast of Sumatra; the mouth of the river is situated in $5^{\circ} 09' N$, $97^{\circ} 13' E$.

The Nan-wu-li yang, 'ocean of Lamuri', extended along the north coast of Sumatra and west of Poulo Weh. The editor identifies the Hua kai star with ζ of Cassiopeia, as in appendix 3, Miscellaneous notes on ships, seamanship, navigation, and cognate matters. 'Pu ssu stars' is a seamen's name and cannot be found in the standard lists; but the approximate position of these stars should be ascertainable from the data contained in this diagram. The position of the observer being in approximately latitude $6^{\circ} N$, Vega (Alpha of Lyra) was observed in the north-east. According to the editor's inexperienced calculations, a line drawn south-west from Vega leads to Piscis Australis, and he therefore suggests that the Pu ssu star in the south may be Formalhaut, the largest star in that constellation; again, a line drawn to the north-west from the point where the former line cuts $6^{\circ} N$ leads in the direction of Pegasus and Andromeda; and the editor suggests that the Pu ssu star in the north may be Beta of Pegasus. Thus the Pu ssu asterism, represented as consisting of 4 stars, stretched from south-west to north-west, parallel with the horizon.

STELLAR DIAGRAM NO. III FROM POULO RONDO TO CEYLON

Translation

In the introduction

'Map of the guiding stars when crossing the ocean in travelling from Lung hsien island [Poulo Rondo] to Hsi-lan [Ceylon].

The stars which you see on the east, west, south, and north, high and low, far and near, on all four sides, to reach Hsi-lan mountain.

The guiding stars when you set sail across the ocean in a suitable month travelling to Hu-lu [Hormuz] and Pieh-lo-li [Beruwala].

The two stars of Pei tou [Alpha of Ursa Major?] are 3 fingers [high, $4^{\circ} 49'$].

You see on the south-west side the Shui p'ing stars [Canopus] $5\frac{1}{2}$ fingers [high, $8^{\circ} 26'$]; that is the correct route.

You see on the south-east side the lower two stars of the Teng lung ku



Fig. 9. Stellar diagram III

Four stellar diagrams

stars [Crux] 7 fingers [$11^{\circ} 14'$] above the level [of the water]; that is the correct route.

You see on the west side the Ch'i stars [Alpha of Hydra] $5\frac{1}{2}$ fingers [$8^{\circ} 50'$] above the level [of the water].'

In the diagram

[On the north]

'The two stars in the head of Pei tou [Alpha of Ursa Major?] are $3\frac{1}{4}$ fingers [$5^{\circ} 13'$] above the level of the water.

The first small star of the Pei ch'en stars [Delta of Ursa Minor?] is $3\frac{1}{4}$ fingers [$5^{\circ} 13'$] above the level of the water.'

[On the south]

'The Teng lung stars [Crux] are 7 fingers [$11^{\circ} 14'$] above the level of the water.

In the south-west the Shui p'ing stars [Canopus] are $5\frac{1}{2}$ fingers [$8^{\circ} 26'$] above the level of the water.'

[On the west]

[On the west side the Ch'i stars [Alpha of Hydra] are $5\frac{1}{2}$ fingers [$8^{\circ} 50'$] above the level of the water.'

Comment

This stellar diagram relates to much the same voyage as stellar diagram no. 11. Lung hsien (Dragon Spittle) island is Poulo Rondo, off the north coast of Sumatra. Hu-lu is an abbreviation of Hu-lu-mo-ssu, Hormuz. Pieh-lo-li (Berberyn) is Beruwala, about 35 miles south of Colombo in Ceylon. 'The two stars of Pei tou' are considered below. 'The Ch'i stars' (The Seven Stars) include Alpha of Hydra.

As regards 'the first small star of the Pei ch'en stars', we know from stellar diagram no. 11 that the altitude of Pei ch'en (Polaris) on this voyage was 1 finger, $1^{\circ} 36'$; and we are now told that the altitude of 'the first small star of the Pei ch'en stars' was $3\frac{1}{4}$ fingers, $5^{\circ} 13'$; the difference of altitude was $2\frac{1}{4}$ fingers or $3^{\circ} 36'$. Since the declination of Polaris is now $+89^{\circ} 06'$, 'the first small star' must have been a star whose declination is now about $+85^{\circ} 30'$. The star next to Pei ch'en in the asterism known as Kou ch'en was Delta of Ursa Minor;¹ and the editor therefore suggests that this 'first small star' was Delta of Ursa Minor, declination $+86^{\circ} 36'$.

'The two stars of Pei tou' present great difficulty. This is the only stellar

¹ Needham, vol. III, pp. 260-1.

Appendix 6

diagram to mention these stars; in the introduction they are called 'the two stars of Pei tou'; in the diagram they are called 'the two stars in the head of Pei tou'. In 'Shun-feng' it is stated that the Pei tou star rose in $22\frac{1}{2}^{\circ}$ and set in $337\frac{1}{2}^{\circ}$; and Lü P'an and Lu Ch'eng-en say that the middle star of Pei tou rose in $22\frac{1}{2}^{\circ}$ and set in $337\frac{1}{2}^{\circ}$.

It seems reasonable to suppose that the above four statements refer to the same asterism Pei tou, 'The Northern Dipper'; and this asterism consists of the stars Alpha, Beta, Gamma, and Delta of Ursa Major. And since the declination of Alpha, the most northerly star, is $+61^{\circ} 56'$, it follows that the reading '3 $\frac{1}{4}$ fingers', which, as remarked above, would be equivalent to a declination of $+85^{\circ} 30'$ today and a declination of about $+82^{\circ}$ in 1433, must be incorrect.

This conclusion is confirmed by the *Muhit*, which states that at the islands to the north-west of Sumatra the altitude of Ursa Minor was 8 fingers, and therefore the altitude of Ursa Major must have been 20 fingers, since the altitude of Ursa Major was 13 fingers when that of Ursa Minor was 1 finger. The editor suggests that Alpha of Ursa Major was one of 'the two stars in the head of Pei tou', and that in writing '3 $\frac{1}{4}$ fingers' the author has blindly followed the reading which relates to 'the first small star of the Pei ch'en stars'.

STELLAR DIAGRAM NO. IV FROM HORMUZ IN PERSIA TO CALICUT IN INDIA

Translation

In the introduction

'Map of the guiding stars when crossing the ocean in returning from Hu-lu-mo-ssu [Hormuz] to the country of Ku-li [Calicut]. On the return from Hu-lu-mo-ssu [Hormuz], coming to Sha-ku-ma [Jabal Quraiyat] and setting sail across the ocean, you see the Pei ch'en star [Polaris] 11 fingers [high, $17^{\circ} 40'$].

You see on the east side the Chih nü stars [Lyra] 7 fingers [high, $11^{\circ} 14'$]; [this measurement] serves as a base.

You see on the south-west the Pu ssu stars [Formalhaut?] 8 fingers [$12^{\circ} 51'$] above the level [of the water].

At Ting-te-pa-hsi [Deogarh] you see the Pei ch'en star [Polaris] 7 fingers [high, $11^{\circ} 14'$].

You see on the east side the Chih nü stars [Lyra] 7 fingers [high, $11^{\circ} 14'$]; [this measurement] serves as a base.

You see on the north-west the Pu ssu stars [Beta of Pegasus?] 8 fingers [high, $12^{\circ} 51'$].'



Fig. 10. Stellar diagram iv

Appendix 6

In the diagram

[On the north]

'On setting sail across the ocean from Sha-ku-ma mountain [Jabal Quraiyat] you see the Pei ch'en star [Polaris] 11 fingers [$17^{\circ} 40'$] above the level of the water.

On crossing the ocean from Ting-te-pa-hsi [Deogarh] you see the Pei ch'en star [Polaris] 7 fingers [$11^{\circ} 14'$] above the level of the water.

The Pei ch'en star [Polaris] is 11 fingers [$17^{\circ} 40'$] above the level of the water.'

[On the east]

'On the east side the Chih nü stars [Lyra] are 7 fingers [$11^{\circ} 14'$] above the level of the water.'

[On the south]

'The Ku stars [Crux] are $8\frac{1}{2}$ fingers [$13^{\circ} 39'$] above the level of the water.'

[On the west]

'In the south-west the Pu ssu stars [Formalhaut?] are 9 fingers [$14^{\circ} 27'$] above the level of the water.

In the north-west the Pu ssu stars [Beta of Pegasus?] are 8 fingers [$12^{\circ} 51'$] above the level of the water.'

Comment

This stellar diagram relates to much the same voyage as stellar diagram no. 1.

Ku-li is Calicut ($11^{\circ} 15' N$) on the west coast of India; in the Mao K'un Map the altitude of Polaris at Calicut is stated to be 4 fingers or $6^{\circ} 25'$.

Ku is an abbreviation of Teng lung ku.

THE LOCATION OF LA-SA¹

In the Mao K'un Map, A-tan (Aden), La-sa, Shih-li-erh (Ash Shihr, 49° 34' E) and Lo-fa (Luhaiya) are written in a straight line, and somewhat nearer to the western than to the southern coast of the Arabian peninsula. We search in vain for a name such as La-sa on the western coast; on the southern coast, however, the existence of the name La-sa is sufficiently well attested.

In the twelfth century the Arab merchant ships frequented the coast of the Hadramaut, and Arab geographers were adequately informed about it; thus, to the west of Sarma (Sharma, 50° 02' E) Idrisi marks Lasa'a in his map of 1154;² and Lis'a in his map of 1192;³ and Nuwayri (died in 1332) names Las'a on the west of Sarma, noting that Sarma and Las'a form the shore of the country of 'Hadramawt'.⁴ The name does not appear in the *Muhit*,⁵ however, and it seems not to have been known to the Portuguese or Dutch in the sixteenth and seventeenth centuries; at any rate it is not mentioned by Linschoten (1589) and is not marked in Van Keulen's *Lightende Zee Fakkell* (1681-96), though it may be the 'Lacha' of Van Keulen's map of c. 1726-8.

The name next appears, apparently, on D'Anville's map of 1749,⁶ and it is subsequently marked on the maps of Postlethwayt (1766), Santini (1784), Kitchin (1810), and Wyld (c. 1824). It will be found on the map in Crichton's *History of Arabia* (1833) and in Sprenger's *Die Alte Geographie Arabiens* (1875). This evidence justifies the conclusion that the La-sa of the Mao K'un Map was situated a few miles west of Ras Mukalla (49° 09' E); the maps appear to place it about 6 miles away, but they are drawn on such a small scale that it is difficult to determine its exact situation. It seems probable that La-sa was situated on the bight a mile or two from Mukalla, and lost its importance with the rise of the latter, which is now, next to Aden, the principal port on the southern coast of Arabia.

¹ See British Admiralty Chart 6.

² Kammerer, 'La Mer Rouge', vol. 1, plate XIII, and fig. 5 on p. 53.

³ Kammerer, 'La Mer Rouge', vol. 1, plate XIV.

⁴ Ferrand, *Textes*, vol. II, p. 395.

⁵ See Ferrand, *Textes*, vol. II, p. 525.

⁶ D'Anville's main sources for Arabia were the geographies of Idrisi and Abu'l-Fida, and the *Jihan-nama* of Katin Chelebi (G. R. Tibbetts, 'Early Western Cartography and the Arabian Peninsula', in *The Malayan Journal of Tropical Geography*, vol. III (1954), p. 24).

Appendix 7

No such place as La-sa is known here at the present day,¹ and the name must have been obsolete before 1839, since it finds no mention in Haines' map of that year.² Probably the name La-sa should properly be written Al-Ahsa. There may well be several places bearing this or a similar name on the Arabian peninsula; one such place is the district sometimes known as El-Hasa, 'the Hasa', in the kingdom of Nejd on the south-western side of the Persian Gulf. In 1953 Duyvendak discussed the identification of Fei Hsin's La-sa, and came to the conclusion that it should be located at Muscat.³

It seems probable that Fei Hsin's La-sa was identical with the La-sa of the Mao K'un Map; in identifying it with Muscat, Duyvendak relied mostly on the fact that in the T'ien-i ko edition of Fei Hsin's work La-sa was included in the list of places personally visited by him, whereas it appears from a list of places in the second part of the work that he did not visit the southern coast of Arabia; but Fei Hsin's work is not sufficiently accurate to be considered conclusive on this point. As one instance of inaccuracy we may note the fact that A-lu (Aru) does not appear in either list.⁴ La-sa is described by Fei Hsin,⁵ also in the encyclopaedias of Wang Ch'i (*San-ts'ai t'u-hui*) and Ch'en Meng-lei (*T'u-shu chi-ch'eng*), and in the *Ming shih*, but these descriptions do not help to establish its situation. We naturally suspect that the visit of Chinese ships to La-sa was connected with the trade-route running down from Damascus to Qana (Kane), the modern Husn al-Ghurab near Bir Ali (48° 19' E), but Fei Hsin does not mention any Syrian products.⁶

¹ The editor is indebted to the Resident Adviser for this information.

² *Journal of the Royal Geographical Society*, vol. 1x (1839), facing p. 156.

³ Duyvendak, 'Hsi-yang chi', pp. 20-7.

⁴ Feng, *Fei Hsin*, ch. 11, p. 27, and Pelliot, 'Voyages', p. 334, n. 1.

⁵ Feng, *Fei Hsin*, ch. 1, pp. 37-8; see Rockhill, Part II, pp. 616-17.

⁶ For this trade-route see the map in Hitti, facing p. 62.

APPENDIX 8

THE EARLIEST EUROPEAN RUTTER OF THE VOYAGE FROM MALACCA TO CHINA

In 1944 Cortesão published Rodrigues' Portuguese text and an English translation of the itinerary from Malacca to the Canton river.¹ According to Kammerer the rutter was derived from Tomé Pires, the author of *Suma Oriental*, and should be dated 1514.² The editor offers certain comments and sets out a table of distances between the points which are probably referred to. In the rutter distances are expressed in units called *Jaãs* or *Jaãos*, rendered *jãos* by Cortesão; this word has not been convincingly explained. For the sake of convenience the editor puts the cart before the horse, and presents his conclusions first.

Stages	<i>Jãos</i>	Approximate mileage
'Malaqa' [Malacca Town] to 'pulo param' [Tanjong Tohor]	5	38
Thence to 'pição' (pulo piçam) [Pulau Pisang]	5	40
Thence to 'carymam' (caryman) [Little Karimun]	3	19
Thence to 'syngapura' (singapura) [off Singapore river]	5	25
Thence to 'pedra bramca' [Pedra Branca]	5	32
Thence to 'pulo tymge' [Pulai Tinggi]	5	59
Thence to 'vjoma' (pulo vioma) [Pulau Tioman]	5	25
Thence to 'pulo condor' [Grand Condore]	45	383
Thence to 'teira de chañpara, tñra vermehla' (teira ãmelha) [Point Ké Ga]	15	143
Thence to 'pomta da berela' [Cape Varella]	14	171
Thence to 'pulo cotôm' [Culao Ré]	12	149
Thence to 'ayñam' [Tunku point]	25	275
Thence to 'pulo [Rio de?] cotôm' [Nei ling ting?]	20	226
	<hr/> 164	<hr/> 1585

¹ Cortesão, vol. II, pp. 301, 320.

² A. Kammerer, *La Découverte de la Chine par les Portugais au XVI^e siècle et la cartographie des portulans* (Leyden, 1944), p. 196.

Appendix 8

The average distance represented by a *jāo* is 9.6 sea-miles, the maximum being 12.8 and the minimum 5.0 sea-miles. The variation in the value of the *jāo* is significant. We notice, too, a certain similarity between the value of the *jāo* and the value of the Chinese *keng*, 'watch'; thus, we find that the journey from Malacca to Pulau Pisang 'is' 10 *jāos*, and took 10 watches, and the journey from Pulau Pisang to the Karimun islands is 3 *jāos* and took 3 watches.¹ In view of these considerations it is suggested that Rodrigues used the Malay word *jauh*, 'distant', as a measure of time, and that this measure was equivalent to the Chinese *keng* or watch of 2.4 hours. Most of the places named in the rutter can readily be identified, but a few of the names require further consideration.

'Pulo Param' we take to be Padang, which Eredia represented to lie a mile or two south-east of the Muar river mouth;² this coastal district is still known as Padang.³ From Grand Condore the navigator would sail on a bearing of about 30° until he sighted the coast of Vietnam (Champa), called by the author 'Champara' and 'red land'; but this 'red land' cannot be located with certainty; the author may refer to the cliffs of a reddish colour which run north-east from Point Guio (108° 24' E); but this 'red land' ought probably to be identified with the Chinese Ch'ih k'an ('Red pit'), which on the evidence of the sailing directions should be located at Point Ké Ga (107° 59' E). By 'pulo cotōm' the author refers to Poulo Canton, now called Culao Ré.

When he speaks merely of 'Ayñam', that is, Hai nan island, he gives no precise indication of the land-mark which he has in mind; he may mean the south point of the island, or either of the two land-marks mentioned in the sailing directions, that is, Ta chou tao (island) or T'ung ku shan (Tunku mountain); and it is here presumed that he meant the last-named point. After mentioning Hai nan, the rutter contains the unintelligible phrase 'from here to Pulo Canton twenty *jāos* to the north-east'; and since the author has already named Poulo Canton before mentioning Hai nan, it is suggested that instead of 'Pulo' he intended to write 'Rio de', and referred to the Canton river.

On reaching the Canton river, ships had to proceed to 'the bar of Timom'; 'Timom' is identified with Lin Tin island (now called Nei ling ting) by Cortesão and Kammerer, and both these writers derive the term from the Chinese designation 'T'un men' (Giles, nos. 12,232; 7751), the ancient name of a small mountain situated a little to the south of Hsin an, later called Pao

¹ 'Shun-feng', f. 26.

² See the *Journal of the Malayan Branch of the Royal Asiatic Society*, vol. v, pt. 1 (1932), pl. xxx.

³ *Malacca Strait Pilot*, p. 193.

an, to be identified with the modern town of Nan t'ou (22° 32' N, 113° 55' E). In ancient times a 'T'un men garrison' was located at a port to the south-east of Pao an; the name was changed to 'Nan t'ou post' in the Ming period; but the appellation 'T'un men' was resuscitated during the eighteenth century, since the expression 'T'un men post' appears in the Staunton Map, which the editor has provisionally dated 'about 1793';¹ this post, if we interpret the map aright, was located on the Castle Peak peninsula.²

¹ Mills, 'Coastal Maps', pp. 162-3.

² For further details concerning T'un men see Cortesão, vol. 1, p. 121, n. 2, and Kammerer, *Découverte*, pp. 67-8 and n. 14; and for a sketch-map of the region see Boxer, fig. 4, p. xxxiv.

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C. SHEET MAPS

Arabic

Abu Abdallah al-Sharif al-Idrisi, 1154, 1192.

British Admiralty Charts

[The spelling is that of the Charts; and local Charts are listed according to the geographical divisions in the sections of the Mao K'un Map (Appendix 2)]

General Charts

- 1263 China sea
- 2661a China sea, northern portion—western sheet
- 2660a China sea, southern portion—western sheet
- 941a Eastern archipelago—Sheet 1, western portion
- 748b Indian Ocean—northern portion
- 70 Bay of Bengal
- 2483 Atlantic and Indian Oceans

Local Charts

China

- 2946 Yangtze kiang. Sheet 1. Shang-hai to Ta-t'ung
- 1602 Approaches to Ch'ang Chiang
- 1199 Kue shan islands to Yangtze kiang
- 1124 Southern approach to Yang tse kiang
- 1429 Nimrod Sound to Yung river
- 1759 Wen chow yang to Kue shan islands
- 1754 Tung Yung to Wen chow yang

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- 1761 Ockseu islands to Tung Yung
- 1760 The Brothers to Ockseu islands
- 1962 Hong Kong to The Brothers
- 3026 Macau to Pedro Blanco
- 3992 Hai-nan tao to Hong Kong

China. Vietnam.

- 2062 Tong King Gulf

Vietnam

- 3990 Gulf of Tongking—northern sheet
- 3988 Baie de Qui Nhon to Rivière de Hué
- 3987 Pointe Ké Ga to Baie de Qui Nhon
- 3986 Non Khoai (Poulo Obi) to Pointe Ké Ga

Vietnam. Cambodia. East Thailand. Malaya

- 2414 Gulf of Thailand

East Thailand

- 3965 Prachuap Khiri Khan to Ko Chuang

Malaya

- 3543 Approaches to Singapore
- 2403 Singapore Strait
- 3833 Singapore Strait—western portion

Java

- 1653*b* Java. Central portion

Sunda Strait

- 2056 Straat Sunda and approaches

Sumatra

- 2760 Langsar bay to Benkulen
- 2149 Straat Banka and Gaspar Strait
- 2757 Straat Banka to Singapore

Sumatra. Malaya

- 1358 Pandang and One Fathom bank to Singapore
- 1353 Diamond Point to One Fathom bank

Malaya. West Thailand. Burma

- 830 Bassein River to Pulo Penang

Sumatra

- 2777 Ujong Pöröla to Ujong Raja

Burma. Bengal. East India

- 829 Coconada to Bassein River

Bibliography

East India

- 828 Cape Comorin to Coconada

Ceylon

- 813 Ceylon—south part

Maldiv Islands

- 66a Maldiv Islands—Sheet No. 1
66b Maldiv Islands—Sheet No. 2
66c Maldiv Islands—Sheet No. 3

West India

- 827 Vengurla to Cape Comorin
747 Mount Delly to Calicut
744 Cape Ramas to Alvagudda
826 Karachi to Vengurla
739 Boria pagoda to Malvan

Baluchistan. Persia

- 38 Muscat to Karachi

Persia. Arabia

- 753 Entrance of Persian Gulf

Arabia

- 2851 Masira to Ruus al Jibal
3785 Marbat to Masira island
3784 Ras al Kalb to Marbat
6 Gulf of Aden and southern part of the Red Sea
2523 Red Sea

Africa

- 597 Delagoa bay to Cape Guardafui
2953 Itala to Ras Hafun
653 Mokambo, Mozambique and Conducia

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